



SOUTH AFRICAN RESERVE BANK

National Payment System Department

# Consultation paper on interoperability in the national payment system

2025

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## 1. Definitions

- 1.1 'Agent' means a person who provides agency services to clients on behalf of a payment institution.
- 1.2 'Application programming interface' means a computing interface that defines interactions between multiple software intermediaries and includes a set of rules or protocols that allow software applications to communicate with each other, facilitating the exchange of data, features and functionality.
- 1.3 'Application interoperability' means integrated and interlinked payment applications that enable the exchange of data irrespective of the programming languages.
- 1.4 'Closed-loop payment system' means a payment system or payment activity that is not interoperable with other payment systems, and the payment service provider (PSP) is the same entity or part of the same group as the PSP of the payee, with transactions limited to a specific network or ecosystem.
- 1.5 'Electronic money' means electronically stored monetary value issued on receipt of funds and represented by a claim on the issuer, which is generally accepted as a means of payment by persons other than the issuer and is redeemable for physical cash or a deposit into a payment account on demand.
- 1.6 'Faster payment system' means a system in which the transmission of the payment message and the availability of funds to the payee occur in real-time or near-real time on a 24/7 basis.
- 1.7 'Open-loop payment system' means payment systems that are operated by multiple PSPs and intermediaries that provide interoperable payment products and services by enabling end users to make payments at participating merchants that accept payment instruments.

- 1.8 'Services interoperability' means interoperability of different payment services which enable end users of different payment services to seamlessly transact with each other.
- 1.9 'Store of value' means a payment account offered by payment institutions in which monetary value is stored electronically, used as a means of payment and is redeemable for physical cash or deposited into a payment account.
- 1.10 'Quick response code' means a machine-readable optical label that contains information. In practice, it often contains data of a locator or identifier that points to a website or application.

## 2. Introduction and background

- 2.1 In terms of section 10(1)(c) of the South African Reserve Bank Act 90 of 1989, as amended (SARB Act),<sup>1</sup> the South African Reserve Bank (SARB) is required to perform such functions, implement such rules and procedures and, in general, take such steps as may be necessary to establish, conduct, monitor, regulate and supervise payment, clearing or settlement systems. The National Payment System Act 78 of 1998, as amended (NPS Act)<sup>2</sup> provides for the management, administration, operation, regulation and supervision of payment, clearing and settlement systems in the Republic of South Africa, and to provide for connected matters. The functions provided for in the SARB Act and the NPS Act are performed by the National Payment System Department (NPSD) within the SARB.
- 2.2 The national payment system (NPS) encompasses the entire payment process, from payer to beneficiary, and includes settlement between banks. The process includes all the tools, systems, mechanisms, institutions, agreements, procedures, rules or laws applied or utilised to effect payments. The NPS enables the circulation of money by enabling transacting parties to exchange value. The NPS further contributes to the economic growth and financial stability in South Africa.
- 2.3 In 2011, the SARB expressed its support for enhanced interoperability in the NPS through the publication of the *Position Paper on Interoperability: NPS 01/2011* (Position Paper) in 2011.<sup>3</sup> The Position Paper underscored that the SARB was not supportive of the development of separate and independent closed-loop payment systems over the long term, as this would lead to more fragmentation and inefficiencies in the NPS.
- 2.4 In the Position Paper, the SARB expressed its support for payment systems that:

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<sup>1</sup> [https://www.resbank.co.za/content/dam/sarb/what-we-do/prudential-regulation/regulated-institutions/1\)%20%20South%20African%20Reserve%20Bank%20Act,%201989%20\(Act%20No.%2090%20of%201989\).pdf](https://www.resbank.co.za/content/dam/sarb/what-we-do/prudential-regulation/regulated-institutions/1)%20%20South%20African%20Reserve%20Bank%20Act,%201989%20(Act%20No.%2090%20of%201989).pdf)

<sup>2</sup> <https://www.resbank.co.za/content/dam/sarb/what-we-do/payments-and-settlements/regulation-oversight/NPS%20Act.pdf>

<sup>3</sup> [https://www.resbank.co.za/content/dam/sarb/what-we-do/payments-and-settlements/regulation-oversight/PP2011\\_01.pdf](https://www.resbank.co.za/content/dam/sarb/what-we-do/payments-and-settlements/regulation-oversight/PP2011_01.pdf)

- 2.4.1 give preference to generally accepted international standards as opposed to proprietary standards;
  - 2.4.2 conform to uniform and open standards that lay the foundation for interoperability between payment products and systems; and
  - 2.4.3 enhance cooperation between payment system stakeholders.
- 2.5 In 2018, the SARB published *the National Payment System Framework and Strategy: Vision 2025* (Vision 2025).<sup>4</sup> One of the goals of Vision 2025 is interoperability, aimed at improving communication and interoperability between payment systems to prevent fragmentation and promote a more harmonised and competitive payment ecosystem. Vision 2025 also highlights the importance of collaboration between payment system participants to achieve interoperability.
- 2.6 Despite the publication of the *Position Paper on Interoperability* (Position Paper) in 2011, closed-loop payment systems that lack interoperability continue to exist. Fragmentation and application of proprietary systems/standards persist, resulting in consumers facing different experiences, limited choices, inadequate transparency and inconveniences. Increased interoperability between the closed-loop payment systems, and between the closed-loop and open-loop payment systems, would enhance the adoption and use of innovative, cost-efficient, convenient, diverse and transparent payment methods, such as wallets (stores of value), domestic money remittances, proprietary quick response codes (QR codes), contactless methods of payments, etc.

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<sup>4</sup> <https://www.resbank.co.za/content/dam/sarb/what-we-do/payments-and-settlements/Vision%202025.pdf>

### 3. Purpose

3.1 The purpose of this consultation paper is to propose a revised policy position and regulatory framework on interoperability within the NPS and to solicit views from relevant stakeholders.

3.2 The objective of the revised policy position and regulatory framework is to promote the achievement of the interoperability envisioned in Vision 2025, thus enabling a more interoperable, efficient, inclusive and competitive NPS.

### 4. Scope

4.1 This consultation paper covers the interoperability of domestic payment systems, infrastructures, schemes and products/applications within the NPS. This extends to both the closed-loop and open-loop payment systems. Interoperability of cross-border payment systems is excluded from the scope of this consultation paper.

### 5. What is interoperability?

5.1 The Committee on Payments and Market Infrastructures (CPMI) defines interoperability as the technical or legal compatibility that enables a system or mechanism to be used in conjunction with other systems or mechanisms. Interoperability allows participants within different systems to clear and settle payments or financial transactions across systems without participating in multiple systems.<sup>5</sup>

#### 5.2 Levels of interoperability

5.2.1 Interoperability in payment systems occur at different levels, as outlined below:

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<sup>5</sup> More information on the Committee on Payments and Market Infrastructures is available [here](#).

- 5.2.1.1 Technical/infrastructure interoperability is achieved when payment systems with different hardware, software, technical and operational capabilities enable seamless connections across different payment methods. This relates to interoperability between the systems used for processing, clearing and settling payment transactions.
- 5.2.1.2 Store of value interoperability enables seamless payments between stores of value within a payment stream/payment system. Examples of platform/payment instrument interoperability include wallets (mobile or e-wallets) within the money remittance or faster payment system/stream (FPS). This also includes enabling a payment to be effected from a payment instrument/store of value, i.e. a wallet held at a payment service provider (PSP) to a different payment instrument/store of value platform, such as an account held at another PSP like a bank. Some jurisdictions have advanced their wallet interoperability offerings through the adoption of common technical and operational system requirements by wallet service providers.
- 5.2.1.3 In-scheme interoperability occurs when PSPs become members of a scheme and agree to be bound by the participation rules and operational specifications of that particular payment scheme. Examples of scheme interoperability in South Africa include automated teller machine (ATMs) and open-loop debit and credit card schemes. The customers of a scheme member PSP are able to send and receive payments from customers of another scheme member PSP. ATM interoperability, allows cardholders of different bank-issued cards to withdraw funds from any ATM other than their issuing bank-branded ATM.
- 5.2.1.4 Network interoperability occurs between payment system networks to support the transmission of different messages and mostly applies to cross-border payments and regional payments, such as enabling consumers to transact with their domestic credit cards in other countries.
- 5.2.1.5 Merchant interoperability enables merchants to receive payments through different types of payment methods depending on the contractual



agreement with the supporting acquirer, and that the merchant's payment acceptance device is able to operate with multiple payment systems.

5.2.1.6 Agent interoperability enables an agent of one PSP to serve the consumers of another PSP in respect of different payment services. For example, an agent of a PSP might provide cash-in services to consumers of other PSPs but not cash-out services. Full agent interoperability exists whereby multiple PSPs are contracted with a single agent that provides all its services, i.e. pay-in and pay-out agent services, to the customers of all the PSPs.

### 5.3 **Models for interoperability**

5.3.1 The following are three models through which interoperability may be achieved domestically:

5.3.1.1 Bilateral interoperability is when there is a direct link between two PSPs that is governed by bilateral agreements. This approach is commonly used by mobile network operators (MNOs) and banks.

5.3.1.2 Multilateral interoperability involves a technical connection between three or more PSPs that agree on a common set of rules for payment system execution.

5.3.1.3 Hub interoperability involves setting up a central entity to act as a hub to connect PSPs.

### 5.4 **Approaches to interoperability**

5.4.1 There are different approaches to achieving domestic interoperability, with the common approaches being market or government-led, as outlined below. A choice between either of the approaches is informed by the policy objectives sought to be achieved by interoperability.

5.4.1.1 Market-led interoperability can happen when PSPs voluntarily enter into bilateral or multilateral agreements to access each other's customer databases and create value for new and existing products. Essentially, customers are able to access more convenient and efficient platforms as well as products and services that interoperate with the platforms they use. This reduces costs and increases efficiencies; however, this approach can still lead to fragmentation due to some PSPs not having interest in entering into such bilateral agreements.

5.4.1.2 Government-led interoperability entails the creation of an enabling framework by government or the mandating of interoperability by government through an agreement on technical specifications or interoperability rules, i.e. interoperability standardisation. Government-led interoperability is adopted to drive ubiquity, accessibility and digital payment usage. Additionally, government-led interoperability can also reduce barriers of entry for new PSPs, allowing PSPs to share direct and indirect network effects and lowering processing costs for consumers to drive financial inclusion and wider economic growth. The challenging aspect of this approach is that it could be expensive for PSPs to set up the relevant infrastructure.

## 5.5 **The timing of interoperability**

5.5.1 Although interoperability is key to achieving public policy objectives, the size and market share of the payment system, as well as the benefit and value of interoperable systems and services for both the NPS and consumers, should be considered when deciding the appropriate time to mandate interoperability within a payment system and between payment systems. Mandating interoperability may prematurely stifle innovation and add costs, resulting in fewer PSPs and lower levels of consumer adoption of digital payments.

## 6. Problem statement

### 6.1 Fragmented closed-loop payment system

6.1.1 The South African payment ecosystem hosts a number of closed-loop payment systems that adopt and apply proprietary standards and are not subject to universally applicable common standards.<sup>6</sup> These non-interoperable closed-loop payment systems include, among others, digital, electronic and mobile wallets (see section 7.3). Non-interoperable closed-loop payment systems increase fragmentation of the NPS and costs for consumers; hamper competition by supporting the creation of monopolies; limit choices for consumers, who have to contract with multiple service providers to pay to all stores of value; and decrease the availability/ubiquity of payment services and products for businesses and consumers.

### 6.2 Slow adoption of faster payment system

6.2.1 Participants are not mandated by the SARB to participate PayShap, a faster payment system in South Africa. This has resulted in fewer participants originating and accepting/acquiring PayShap a year since it was first launched. Non-banks participate in PayShap through bank sponsorships and PayShap is provided on a bank-account-to-bank-account basis. As a result of the sponsoring bank intermediated access model, stores of value provided by non-banks are not directly interoperable with bank accounts in PayShap. Furthermore, PayShap was predominantly limited to person-to-person (P2P) transfers, however, with the launch of PayShap Request in December 2024, person-to-business (P2B) use case will be enabled. PayShap is not interoperable with other stores of value and real-time clearing, limiting its wider reach and effectiveness as an interoperable faster payment system.

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<sup>6</sup> PSPs that provide payment products and services in closed-loop payment systems adopt proprietary standards, whereas PSPs that provide payment products and services in open-loop systems adopt universally applicable common standards (i.e. the International Organization for Standardization 20022 standard).

## 6.2.2 **Inefficiencies and cost implications for participants and consumers**

6.2.3 While interoperability is expected to bring network efficiencies, it has cost implications for utilisation of PSPs' infrastructure, services, methods, and so forth. Furthermore, the processing costs for PSPs and transactional costs for consumers remain relatively high in both closed-loop and existing interoperable open-loop payment systems. For instance, for a low-value payment system aimed at promoting a cash-lite society, PayShap is yet to bring the cost efficiencies that would benefit the end consumers.

## 6.3 **Lack of QR code standardisation and interoperability**

6.3.1 As QR payments have become increasingly popular, the NPS has witnessed a proliferation of multiple QR codes in retail stores as businesses support the different payment preferences of their customers. Consequently, merchant stores display multiple QR codes that are not interoperable. Without a standardised or interoperable QR code, consumers continue to make or receive payments to and from different PSPs using separate QR codes for each PSP. Furthermore, QR codes are widely used in the card payment stream and less so in other payment systems, including the faster payment system.

# 7. **Interoperability in the South African context**

## 7.1 **Drivers of interoperability in South Africa**

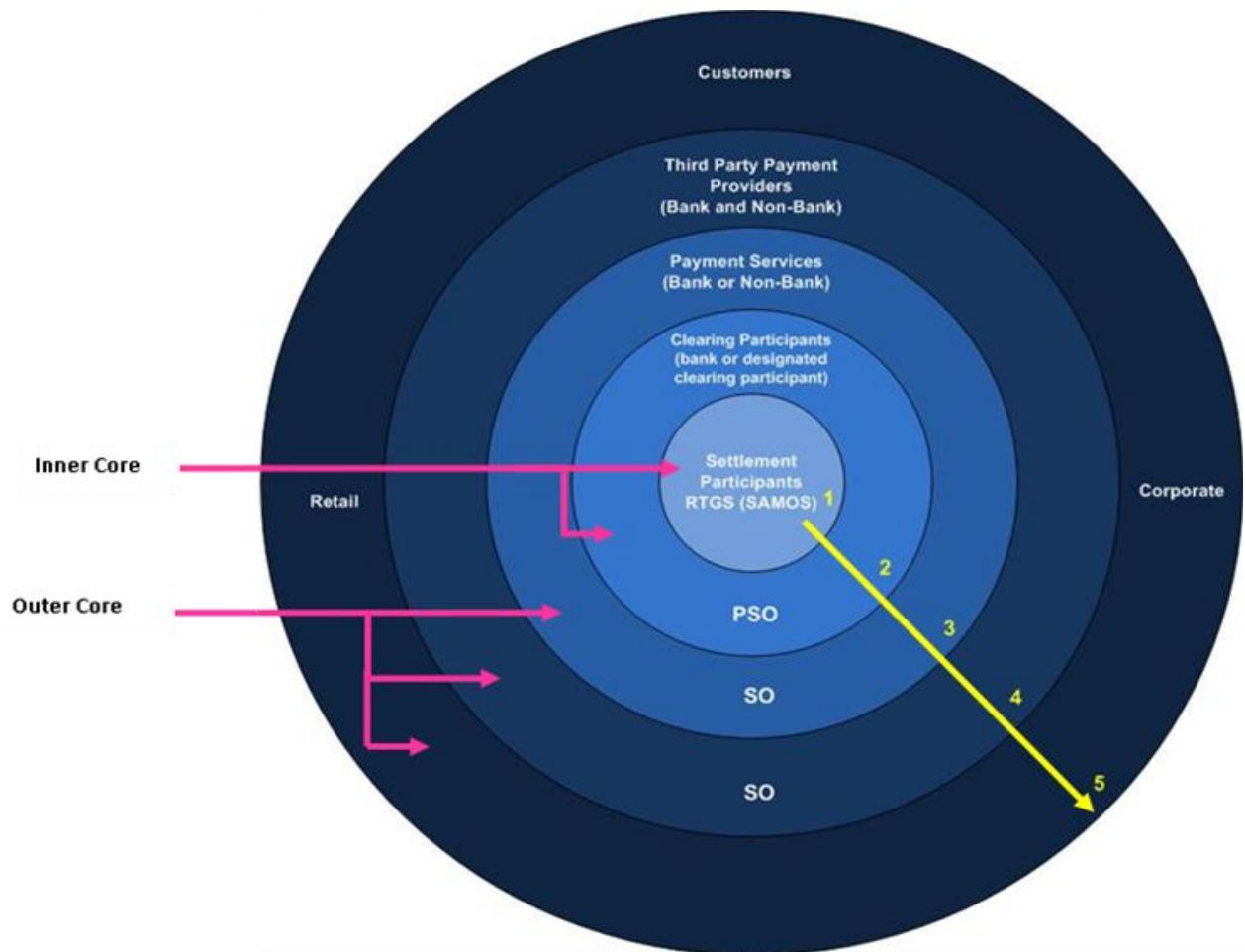
7.1.1 The main drivers of interoperability in the NPS are the SARB NPS vision/strategy documents, i.e. Vision 2010, 2015 and 2025, the NPS Act, the Position Paper, as well as the International Organization for Standardization 20022 (ISO 20022) standard. These documents provide the policy and regulatory framework, as well as the goals and strategies, for interoperable payment systems in South Africa.

- 7.1.1.1 Vision 2025 contains interoperability as one of its goals, aiming to improve communication between and the integration of payment systems to prevent fragmentation and promote a more harmonised and competitive payment ecosystem. Vision 2025 also highlighted the importance of collaboration between payment system participants to achieve interoperability.
- 7.1.1.2 The NPS Act provides for the clearing and settlement of payment instructions and obligations, which sets the foundation for interoperability in the NPS. Payment clearing houses have been established under the payment system management body (PSMB), which facilitates interoperability of the various payment systems/streams.
- 7.1.1.3 In 2011 the SARB issued a Position Paper on interoperability, which underscored the SARB's lack of support for the development of separate and independent closed-loop payment systems. Non-interoperable closed-loop payment systems perpetuate payment system fragmentation and, ultimately, inefficiencies in the entire NPS. The SARB expressed its support for payment systems that align to generally accepted international standards as opposed to proprietary standards; conform to uniform and open standards that lay the foundation for interoperability between payment products and systems; and enhance cooperation between payment system stakeholders.
- 7.1.1.4 ISO 20022 is a rich, structured and extensible messaging standard that provides richer and higher quality data and much more detailed information about payments for processing, verification and screening. ISO 20022 seeks to improve interoperability, transparency and flexibility across the payment landscape, as well as the integration of payment systems and increased payment data automation. The South African Multiple Option Settlement (SAMOS) system, the real-time gross settlement (RTGS) system, participant banks, and other financial market infrastructures migrated to the ISO 20022 messaging standard in September 2022. The Southern African Development Community (SADC) RTGS migrated to ISO 20022 in June 2024. Authenticated Collections (ACs) and PayShap are also ISO 20022 compliant.

## 7.2 **Interoperable payment systems in South Africa**

7.2.1 In South Africa, interoperability is concentrated in the inner core of the payments industry at the infrastructure, scheme and platform levels, as depicted in Figure 1. The inner core comprises clearing and settlement participants and the outer core comprises payment services and third-party providers, which are mainly non-banks, as well as consumers.

**Figure 1: The South African National Payment System**



Source: Payments Association of South Africa

7.2.2 The following retail payment systems are currently interoperable in South Africa:

7.2.2.1 EFT Debit payments are non-authenticated debit order collections that are processed at a predetermined time. EFT debit payments are interoperable as collectors can process debit orders from clients with bank accounts held at different banks. Currently, EFT debit payments are not interoperable beyond bank accounts, for example, on mobile wallets.

7.2.2.2. EFT credit payments are effected between customers of different PSPs and where funds are cleared and made available within a period of 48 hours during business days.

- 7.2.2.3 ACs are early debit orders, where consumers authenticate mandates for banks to debit their bank accounts on behalf of collectors, according to the agreement between the consumer and the collector. The AC payment system is interoperable as collectors can process early debit orders from their customers' bank accounts held at different bank accounts into their own bank accounts.
- 7.2.2.4 The American Express (Amex) scheme approaches merchants to accept Amex's cards wherein the transactions are acquired and cleared in the three-party business model and four-party clearing model. Interoperability is also limited in this regard, as Amex cards are not accepted by all merchants.
- 7.2.2.5 The Diners Club (Diners)<sup>7</sup> scheme operates in the same manner as the Amex scheme insofar as merchants are approached to accept Diners cards and the transactions are acquired and cleared in the three-party business model and four-party clearing model. Interoperability is also limited within the Diners scheme, as their cards are not accepted by all merchants.
- 7.2.2.6 FPSs enable the processing of low-value credit-push payment instructions between a payer and payee that are cleared in real-time, resulting in the instant availability of funds into the payee's bank account, and are available 24 hours a day and 7 days a week. South Africa has two FPSs, Real-Time Clearing (RTC) and PayShap, both of which are operated by the South African Bankers Services Company Pty Limited. The former was launched in 2006 while the latter in March 2023.
- 7.2.2.7 ATMs are fully interoperable as they enable consumers to withdraw cash and conduct balance enquiries at any branded ATM by making use of cards issued by either a bank, non-bank, other institutions or government.

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<sup>7</sup> Diners – works the same as Amex except that Diners is also a designated clearing system participant and, in terms of their Designation Notice, are allowed to process transactions in terms of the pure three-party clearing model, as well. As a result, although most South African transactions are four-party clearing, some are exempted and are switched via a three-party model.



7.2.2.8 Debit and credit cards are interoperable through the four-party card scheme, which enables card issuers and acquirers to be connected to one common card network. This is attributable to the rules of the Payment Association of South Africa (PASA), which require that acquirers must be licensed with all card schemes and have service agreements with all PCH system operators (PCH SOs). Most cards are accepted by merchants that accept payments via a point-of-sale (POS) device, card-linked digital instruments, i.e. tap/scan to pay using a cellphone or wearables, and e-commerce, including services provided by MNOs.

7.2.2.9 Petrol cards are linked to credit cards and are limited to purchases relating to the maintenance of vehicles such as fuel payments, toll fees and tyre purchases.

### **7.3 Non-interoperable payments**

7.3.1 The following payment platforms and methods are currently not interoperable in South Africa:

#### **7.3.1.1 Wallets**

7.3.1.1.1 Digital wallets do not store funds, instead when making use of digital wallets, the funds are directly debited from the account linked to a card. Digital wallets are currently limited to online shopping payments and POS payments through NCF technology. Examples of digital wallets are provided in Box 1.

7.3.1.1.2 Stores of value (Mobile and electronic wallets), also referred to as e-money or mobile wallets/mobile money, are mainly offered by banks and MNOs (sponsored by banks), are preloaded with funds through cash-in at the wallet provider's agent or through an EFT. These stores of value enable consumers/payers to store the value in the wallet to transfer funds to the payee of the same PSP (issuer) or to transact at affiliated merchants. These wallets are not interoperable as cross-payments between different stores of

value, including wallets and bank accounts of different PSPs/issuers, are currently not enabled. Examples of wallets are provided in Box 1 below.

- 7.3.1.2 Remittance service providers provide remittance products and services to consumers that enable them to send money to the recipient for collection, only from the remittance service provider or the provider's agent. These closed-loop remittances lack the flexibility and convenience required to provide consumers with unlimited cash-in and cash-out options. For instance, a remittance from one bank cannot be cashed-out from another bank's ATM or payout partner.
- 7.3.1.3 Currently, multiple proprietary QR codes are used to effect payments at various merchants, which impedes interoperability. In 2021, PASA adopted a QR code standard that enables the interoperability of QR codes through the development of a single country-based QR code. However, the adoption of the QR code standard by PSPs is optional. The ultimate goal is to establish a single, recognisable QR code that is interoperable between networks and useable on any application to enable payments and promote a consistent user experience.
- 7.3.1.4 Proprietary application programming interfaces (APIs) and non-standardised payment messages are used by PSPs, including third-party payment service providers and banks, to process payment instructions or transactions. The lack of standardised APIs creates restrictions for third parties to integrate their systems to those of banks to provide payment solutions to consumers. Non-standardised APIs create complexities for third parties when they need to connect to multiple banks to offer their payment solutions, creating barriers for the achievement of technical interoperability.

## **Box 1: Examples of wallets**

### **Digital wallets**

Apple Pay, Samsung Pay, Fitbit Pay and Garmin Pay are digital wallets exclusively linked to the associated devices and wearables offered by, but not limited to, Samsung, Apple, Fitbit and Garmin. Consumers link their bank cards to the digital wallet and use their devices and wearables to make point-of-sale (POS) and online payments. Users link their bank cards to the associated devices and wearables to make contactless payments.

In practice, a consumer is able to acquire goods and services at a merchant that accepts payments via a POS device. The consumer would then present a smart phone or smart watch at a POS to make a payment by means of near-field communication (NFC) technology.

### **Wallets/stores of value**

MTN MoMo is an application that can be downloaded onto smart devices and is not limited to MTN customers, meaning customers of other South African mobile networks, such as Vodacom, are able to download the wallet to their smart devices. The wallet is preloaded with funds via cash-in at the MTN MoMo agent, a bank card or EFT and enables consumers to store value for transactions.

Consumers can send money vouchers to any South African cellphone number, send money to other MTN MoMo customers and pay bills and for services and products offered by MTN MoMo partners. The wallet operates within a closed-loop system as transfers can only be made between MTN MoMo wallet holders and money vouchers can be cashed out at MTN MoMo agents only.

VodaPay enables consumers to store their funds in a wallet and transact. Consumers can add cards issued by any recognised South African bank to the application to make payments. The transaction types supported by VodaPay include prepaid purchases, bill payments, online shopping and in-store payments using SnapScan, Zapper and Mastercard QR codes. VodaPay enables consumers to only transfer money between VodaPay wallets, and to withdraw money to bank accounts linked to the registered bank cards.

Electronic wallets offered by South African banks were initially mainly offered to bank clients to enable them to send money to any South African cellphone number. This money could only be withdrawn from an ATM of the bank that issued the electronic wallet and stored and made use of for value-added services. This offering operates in a closed loop-system and does not support interoperability. First National Bank's eWallet is an example of an electronic wallet offered by a bank.

## 8. The benefits of interoperability

- 8.1 Interoperability will benefit the payment ecosystem by:
- 8.1.1 widening the availability of payment services to consumers and businesses;
  - 8.1.2 growing the number of participants offering payment services through the interlinking or connecting the closed-loop payment system networks to the open-loop-payment systems;
  - 8.1.3 assisting in achieving ubiquitous payment services and products in the NPS;
  - 8.1.4 lowering the cost of payment processing for payment system participants/PSPs using common technical and messaging standards that enable seamless communication between payment systems, potentially translating to lower fees for consumers;
  - 8.1.5 enabling a more harmonised and competitive payment ecosystem and creating a cash-lite society;
  - 8.1.6 improving end users' choices and potentially boosting financial inclusion;
  - 8.1.7 enhancing adherence to a minimum standard of service that benefit consumers by minimising different functionalities found in payment systems and resulting in a more enhanced customer service experience;
  - 8.1.8 connecting/interlinking dissimilar closed-loop systems in cross-border and domestic environments through the adoption of global standards;
  - 8.1.9 increasing standardisation and harmonisation within and between payment systems and instruments to increase efficiency and lower costs;

- 8.1.10 increasing competition and innovation between PSPs as consumers across South Africa send and receive funds using the most convenient and most affordable payment method available;
- 8.1.11 enabling seamless payments that can be cleared between any account or wallet;
- 8.1.12 eliminating the need for the consumer to sign up with multiple wallet providers to transact;
- 8.1.13 eliminating the need for merchants to sign up with several wallet providers to accept different wallet payments from consumers;
- 8.1.14 enabling the integration of new and existing payment systems through data sharing;
- 8.1.15 increasing transparency for regulators and PSPs vis-à-vis payment flows, enabling fraud and financial crime detection and mitigation; and
- 8.1.16 assisting in improved economic activity and potentially contributing to economic growth.

## 9. Interoperability obstacles and risks

9.1 Although interoperability is a key enabler of harmonised, integrated and modernised payment systems, the following obstacles may hinder the introduction and enhancement of interoperability:

### 9.1.1 **High costs**

9.1.1.1 Participants in the NPS face high costs associated with the acquisition, design and maintenance of new systems/technologies/infrastructure that adhere to global standards (e.g. ISO 20022), and those associated with the

time and resources needed to design and maintain the technical, organisational and commercial requirements of interoperability.

## 9.1.2 **Lack of standardisation and harmonisation**

9.1.2.1 Different technical standards, communication protocols, messaging standards and supporting hardware and software infrastructure, including proprietary APIs used by PSPs, create obstacles to achieving interoperability and greater efficiency in payment processing. Interoperability requires payment systems to communicate through common messaging standards. Furthermore, although PASA has issued a QR code standard, regulatory harmonisation and further collaboration is still required for QR codes to be interoperable and reduce the use of proprietary QR codes.

## 9.1.3 **Cyber and data risks**

9.1.3.1 PSPs could be reluctant to share data due to the cyber and systemic risks of a data breach. The possible loss of PSPs client base to competitors is another obstacle to data sharing among PSPs.

## 9.1.4 **Payment system complexity**

9.1.4.1 Payment systems can be complex, which poses challenges to incorporating the different technologies of the parties participating in the payment value chain, and visualising the interconnections between different technologies within payment systems.

## 9.1.5 **Stifling innovation**

9.1.5.1 Market adoption is key to ensuring large-scale accessibility to payment systems. While interoperability (through the use of a shared infrastructure) could lower costs and enable competing PSPs to offer innovative products to customers to protect and increase their market share, it could also stifle

innovation and deter market development or the enhancement of innovative payment systems/products. This is particularly true if interoperability reduces returns on investment by allowing PSPs to 'free ride' and benefit from other PSPs' investments. This may inhibit dynamic competition in the NPS.

#### **9.1.6 Reduced product differentiation in the market**

9.1.6.1 Interoperability may reduce product differentiation as participants are only able to compete on certain aspects of the product that are not interoperable. This removes competition on the core platform or standards and can strengthen the position of incumbents.

#### **9.1.7 Inadequate regulation**

9.1.7.1 Although the SARB supports market-driven initiatives and the adoption of payment modernisation and integration, inadequate policy, regulatory intervention or adoption of a government-led approach to interoperability may exacerbate the proliferation of closed-loop payment systems.

#### **9.1.8 Incompatible payment systems and different use cases**

9.1.8.1 The payment infrastructures of different PSPs may not be interoperable due to the lack of compatibility and the willingness of PSPs to invest in interoperable payment systems. In turn, the different PSPs may prefer to invest in payment systems that support their own preferred use cases, which will likely differ across the payment ecosystem.

#### **9.1.9 Anti-competition**

9.1.9.1 Some PSPs are of the view that interoperability will have a negative impact on competition in the payments environment and would rather opt to enhance their payment systems independently to retain their market share.

#### 9.1.10 **Increased fraud**

9.1.10.1 While interoperable payment systems (including faster payments system) provide standardisation and integration to system operators, PSPs and national authorities, fraudsters may exploit interoperability and the speed of the payment systems to transfer fraudulent funds faster and hide the transfer of these funds through the use of different systems and accounts.

#### 9.1.11 **New barriers to access**

9.1.11.1 Ubiquitous payments and greater access by new players to payment system functionality may increase the technical and compliance burden on PSPs, leading to non-compliance by some PSPs with the new system requirements. This could potentially limit the accessibility of the payment system to some participants, perpetuate reliance by some PSPs on other PSPs to access payment systems (indirect access) or cause a proliferation of closed-loop solutions.

#### 9.1.12 **Reduced resilience amid system failure**

9.1.12.1 As payment systems become more interoperable, the risk that a system failure might affect other systems may increase, which could result in a systemic risk.

## 10. **Interoperability in the international landscape**

10.1 Countries around the world have different approaches to, and levels of, interoperability in the payments landscape. Based on the information in Table 1, Singapore, Hong Kong, Australia, Malaysia, India, Brazil and Nigeria are leading in the adoption of country-based QR codes, through standardisation and mandating the adoption thereof. Singapore, Hong Kong, India, Malaysia, Brazil, Kenya, Nigeria and Zimbabwe are in an advanced stage of achieving wallet interoperability. Some of the above-mentioned countries have developed FPSs that enable payments across



different wallets and participation of non-banks, which has contributed to the achievement of national interoperability in relation to specific payment systems.

**Table 1: International interoperability initiatives**

No.	Jurisdiction	QR codes	Faster payment system	Wallets
1.	Singapore	SGQR: <ul style="list-style-type: none"> <li>country-based QR code available</li> </ul>	PayNow: <ul style="list-style-type: none"> <li>real-time payments using internet and mobile banking channels</li> </ul>	PayNow: <ul style="list-style-type: none"> <li>enables payments across different electronic wallets</li> </ul>
2.	Hong Kong	Hong Kong Common QR Code: <ul style="list-style-type: none"> <li>converts multiple QR codes to a specific QR code</li> </ul>	Faster Payment System: <ul style="list-style-type: none"> <li>allows payments between different banks</li> </ul>	Faster Payment System: <ul style="list-style-type: none"> <li>connects all banks and e-wallet service providers</li> <li>allows payments across different banks and e-wallets</li> </ul>
3.	Turkey	National QR Code	FAST System: <ul style="list-style-type: none"> <li>enables money transfer between different bank accounts on a 24/7 basis</li> </ul>	
4.	Australia	National QR code payment scheme: <ul style="list-style-type: none"> <li>QR network will connect numerous APIs and digital wallets</li> </ul>	New Payments Platform (NPP): <ul style="list-style-type: none"> <li>enables customers of financial institutions to make immediate payments on a 24/7</li> <li>The Fast Settlement Service provides</li> </ul>	

			for the settlement of NPP transactions between financial institutions on a 24/7 basis across exchange settlement accounts	
5.	Malaysia	<p>Duit Now QR:</p> <ul style="list-style-type: none"> <li>A national QR standard established by PayNet under the Bank Negara Malaysia's <i>Interoperable Credit Transfer Framework</i></li> </ul>		<p>Duit Now:</p> <ul style="list-style-type: none"> <li>Any compliant QR code can take payments from any participating banks and e-wallets.</li> </ul>
6.	India	<p>Bharat QR standard:</p> <ul style="list-style-type: none"> <li>formulated by Mastercard, the National Payments Corporation of India and Visa</li> <li>in 2020, over seven core payment QR codes (Bharat QR, UPI QR and proprietary QR codes of other PSOs) were deployed, of which 30.46 lakh pertained to Bharat QR</li> <li>as of October 2020, only the two interoperable QR codes (Bharat QR and UPI QR) continued and all PSOs using proprietary QR were required to shift to one of the two</li> </ul>	<p>Immediate Payment Service:</p> <ul style="list-style-type: none"> <li>24/7 fast payment system</li> <li>provides for real-time transfer of funds between remitter and beneficiary</li> <li>multi-channel system that can be accessed using mobile, ATM, internet banking, bank branches, etc</li> <li>besides banks, the Payment and Settlement Systems in India   allows non-bank entities, such as prepaid payment instrument (PPI) issuers, to participate and facilitate remittances from wallets to the recipient bank accounts</li> </ul>	<ul style="list-style-type: none"> <li>interoperability facilitated through card networks for card-based PPIs and the Unified Payments Interface (UPI) for mobile wallets</li> <li>interoperability allowed among PPIs, providing access to a wide number of merchants among the PPI holders and vice-versa, without the need for multiple onboarding by various issuers and acquirers</li> </ul> <p>UPI:</p> <ul style="list-style-type: none"> <li>consumers will be able to use their mobile wallets and select prepaid cards to withdraw cash from ATMs</li> </ul>

		<ul style="list-style-type: none"> <li>by 31 March 2022, there were 48 payment and settlement systems</li> </ul>		
7.	Brazil	<p>BR Code:</p> <ul style="list-style-type: none"> <li>QR code standard introduced in September 2020</li> </ul>	<p>PIX Instant Money System:</p> <ul style="list-style-type: none"> <li>facilitates payments from different bank accounts in 10 seconds</li> <li>does not require acquirers, card schemes or issuers</li> </ul>	<p>PIX Instant Money System:</p> <ul style="list-style-type: none"> <li>digital wallets are fully interoperable within PIX, such that two consumers that have digital wallets from different service providers are able to transact in real time</li> <li>provides for the ability to have a mobile wallet without having a bank account by making use of a proxy (i.e. e-mails and cellphone numbers)</li> </ul>
8.	Kenya	<p>In 2023, the Central Bank of Kenya issued the <i>Kenya Quick Response Code Standard 2023</i>:</p> <ul style="list-style-type: none"> <li>guides how PSPs and banks that are regulated by the Central Bank of Kenya (CBK)</li> <li>CBK will issue QR codes to consumers and businesses that accept digital payments</li> </ul>	<p>As of 2021, Kenya had three payment switches and four gateways that are involved in the processing and switching of various transactions.</p> <p>Pesa Link:</p> <ul style="list-style-type: none"> <li>customers can send amounts ranging from Ksh 10 to Ksh 999 999 instantly between bank accounts using multiple channels, including mobile, ATMs and internet</li> </ul>	<p>In April 2022 Kenya launched mobile money merchant interoperability:</p> <ul style="list-style-type: none"> <li>launched in April 2022</li> <li>consumers able to make payments to any merchant irrespective of the mobile network they are subscribed to</li> <li>mobile money providers and CBK collaborated to achieve this level of mobile money merchant interoperability</li> <li>interoperability will be extended</li> </ul>

				to value-added services such as bill payments
9.	Nigeria	<p>Nigeria published the <i>Framework for Quick Response Code Payments</i>:</p> <ul style="list-style-type: none"> <li>• provides regulatory guidance for the operation of QR code payment services in Nigeria</li> <li>• aims to ensure the adoption of appropriate QR code standards for safe and efficient payments services</li> <li>• stipulates the following: <ul style="list-style-type: none"> <li>– acceptable QR code standards</li> <li>– interoperability of QR payments</li> <li>– the roles and responsibilities of participants in QR payments</li> <li>– risk management principles for QR code payments</li> </ul> </li> </ul>	<p>Nigerian Inter-Bank Settlement System (NIBSS) Instant Payment (NIP):</p> <ul style="list-style-type: none"> <li>• launched in 2012</li> <li>• enables customers to make cross-bank payments by entering the account number of the recipient, with funds available to the recipient almost immediately</li> <li>• Express Elixir system operates on 24/7</li> <li>• NIP allows both banks and mobile money operators to participate in its system as direct participants and transactions between them are completely interoperable</li> </ul>	<p>Global Mobile Payments Monitoring and Regulation System at NIBSS:</p> <ul style="list-style-type: none"> <li>• accepts and processes the daily transaction data of all licensed mobile money operators</li> </ul> <p>Framework for mobile money services:</p> <ul style="list-style-type: none"> <li>• mobile money operators (MMOs) required to connect to the National Central Switch for the purpose of ensuring interoperability of all schemes in the system</li> <li>• MMOs required to interconnect through NIBSS to ensure interoperability</li> </ul>
10.	Zimbabwe	<p>QR code payments are not interoperable due to the existence of proprietary QR codes such as Stanbic, EcoCash and the Nedbank mobile application</p>	<p>In February 2021, Finteq Africa (the system provider for the new ISO 20022 EFT clearing house solution deployed in Harare, Zimbabwe, at Zimswitch) announced the go-live of the Finteq</p>	<p>In 2020, the Reserve Bank of Zimbabwe published a framework on interoperability titled <i>Money Transmission, Mobile Banking and Mobile Money Interoperability</i></p>

			<p>Clearing House (FCH) system:</p> <ul style="list-style-type: none"> <li>• said to support all of the principles of modern-day open and interoperable payment systems</li> <li>• has good security, transparency</li> <li>• convenient</li> <li>• reduces costs to clear transactions between participants</li> <li>• enables straight-through processing</li> <li>• allows for remote transacting</li> <li>• facilitates faster payments</li> <li>• operated by Zimswitch using brand name ZEEPAY</li> <li>• introduces an efficient and secure credit push payment clearing and settlement stream</li> <li>• available to financial institutions, including non-banks, in accordance with local regulations</li> </ul>	
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## 11. Policy and regulatory position and recommendations

11.1 The persistence of closed-loop payment systems and multiple non-standardised or harmonised QR codes and APIs, lack of or inadequate wallet interoperability, bank accounts that operate between closed-loop

payment systems, money transfer services and FPSs, etc., necessitates policy and regulatory intervention by the SARB. The intervention seeks to reduce the fragmentation of the NPS and to address the obstacles and risks listed under paragraph 9.1.

11.2 The emergence of new technologies and payment methods, and the need for agile, flexible and adaptive payment systems that can interoperate and interlink domestically, regionally and globally, also calls for policy and the regulatory-driven modernisation of payment system infrastructures. This modernisation would promote a more interoperable, faster, ubiquitous, accessible, inclusive, innovative, cost-efficient and competitive payment systems while maintaining the safety of the NPS.

11.3 In considering the necessity, nature and extent of interoperability in the NPS, the SARB will be guided by the following policy objectives, principles and factors:

11.3.1 the volumes and values of transactions in closed-loop payment systems/services/activities/instruments that exceed a threshold to be prescribed by the SARB;

11.3.2 the number of existing payment systems as well as the services and activities provided;

11.3.3 the number of issuers and/or acquirers or participants/providers of the payment systems/services/activities/instruments;

11.3.4 the types of payment systems/services/activities/instruments;

11.3.5 compliance to generally accepted international standards as opposed to proprietary standards;

11.3.6 conformity to uniform and open standards that lay the foundation for interoperability between payment products and systems;

- 11.3.7 enhanced cooperation between payment system stakeholders;
- 11.3.8 interoperability from an acquiring/acceptance perspective; and/or
- 11.3.9 policy and regulatory objectives such as competition, efficiency and financial inclusion in the NPS.

11.4 Below are the policy and regulatory recommendations to promote interoperability in the NPS based on the above policy objectives, principles and factors:

#### 11.4.1 **Store of value and platform interoperability**

11.4.1.1 South Africa is characterised by a plethora of closed-loop payment systems, with PSPs offering various wallets and accounts for payment purposes, resulting in fragmentation and inefficiencies. As a result, all stores of value including wallets/payment accounts, will be required to interoperate within 12 months of issuance of a directive by the SARB. The following will be mandated in respect of stores of value:

##### 11.4.1.1.1 **Platform interoperability**

Wallet-to-wallet (including digital, mobile and e-money) or bank-account-to-wallet interoperability, also known as platform interoperability, will be mandated for all PSPs. This will enable consumers of one PSP, i.e. wallet or bank account provider to make transfers or payments to another wallet or bank account provider. This interoperability will apply to all stores of value, including digital wallets, e-money wallets, mobile money and bank accounts, and payment types including, P2P, P2B, person-to-government, bill and bulk payments. Increased interoperability will enhance the ubiquity, reach and accessibility of payments, while also lowering costs for consumers in the underserved areas and communities with underdeveloped payments infrastructure. This will also increase interoperability within the FPS and other payment streams.

#### **11.4.1.1.2 Agent interoperability (mobile money agents, cash-in-cash-out agents)**

Money remitters and platform providers employ the services of agents to facilitate cash-in/cash-out services, provide P2P transfers, bill payments, and so forth, to underserved areas. Agent interoperability will be mandated to enable an agent of one PSP to provide cash-in and cash-out services, transfers and bill and bulk payments to customers of other PSPs. Limited access points will call for agent non-exclusivity (agent exclusivity will be disallowed and agents will have the freedom to represent multiple PSPs. PSPs will also be required to open their systems to other PSPs. This is aimed at addressing limited access points and ensuring that PSPs can have multiple agents to choose from to expand the provision of payment activities.

#### **11.4.1.1.3 Merchant interoperability**

Merchant interoperability, which allows consumers to make payments to businesses irrespective of their PSP, will also be mandated. Essentially, consumers should be able to transact with a retailer's PSP regardless of the account held by the merchant. This will be beneficial to the consumer as they will be able to interact with different PSPs at one retailer/merchant. This type of interoperability is rare in mobile money markets, though it was initiated in Kenya in 2022.

### **11.4.2 Credit transfer interoperability**

#### **11.4.2.1 Money transfer interoperability**

Domestic remittance operators/providers will also be required to interoperate their platforms and products/services to enable customers to cash in and cash out and make payments or transfers from their operator's/provider's platform to other platforms. All PSPs providing remittance services will be mandated to accept and/or acquire payments/payment instructions from other PSPs. This will increase the



number of access points, thereby expanding the reach, accessibility and ubiquity of payments and payment infrastructure. Agent interoperability and scheme interoperability will also be mandated under the Money transfer interoperability.

### **11.4.3 Faster payments interoperability**

#### **11.4.3.1 Faster payment interoperability with other faster payment systems**

There are two FPSs that are currently not interoperable. RTC was initially designed as a premium service although it has since been extended to P2P transactions, which is a similar use case to that of PayShap, which currently executes P2P transactions as well as P2B and business-to-business payments. Having two FPSs may mitigate concentration risk and single point of failure but could potentially increase costs on the part of the participants and consumers. Therefore, the SARB will mandate the interoperability of the FPSs at the following levels:

##### **11.4.3.1.1 Scheme interoperability**

There are similarities between RTC and PayShap, with the latter running on ISO 2022. Standardised and/or harmonised data standard which will form the basis for standardised/harmonised operating rules for RTC and PayShap (scheme interoperability), which will also be mandated. It is crucial to have a single scheme governing all fast payment transactions to ensure the interoperability of the systems through a common set of operating rules and technical standards.

##### **11.4.3.1.2 Infrastructure interoperability**

The SARB will mandate interoperability of FPSs to maximise efficiencies, particularly those related to cost efficiencies. Where the FPSs have different technologies/infrastructures (RTC is a legacy system), interoperability or connection between the two FPSs through standardisation or an application

layer/API would be required to enable network effects (application interoperability).

#### **11.4.3.2 Payment service interoperability with FPS**

The SARB will also mandate interoperability of remittances and other relevant credit transfers from interoperable stores of value, from an acceptance and acquiring perspective, to expand the reach of digital payments. To expand access and enhance network effects, the SARB will allow non-banks to issue stores of value to ensure an interoperable store of values from which faster payments would be effected. Non-banks will be allowed direct participation and connection to the faster payment system.

#### **11.4.4 Faster payment system interoperability with mobile money transfer services**

11.4.4.1 Money transfers are currently provided by banks through multiple closed-loop systems, mostly in partnership with non-banks. Non-banks are required to partner with banks to provide money remittances. Like faster payment systems, money transfer services always make funds available in the payee's account or wallet immediately and operate 24/7/365. Therefore, faster payment systems will be required to be interoperable with money transfers payment systems.

11.4.4.2 Since PayShap already complies with SO 20022, other closed-loop systems will be required to adopt and use ISO 20022 to simplify the connections between money transfers and FPSs. This will further promote the adoption of interoperable FPSs (e.g. PayShap and RTC) that support innovative payment product offerings and ensure the integration of closed-loop systems into interoperable FPSs. The scheme managers, PCH SOs and PSPs will have 18 months to ensure interoperability of the stores of value, remittances, faster payment systems and ATMs.

#### **11.4.5 Interoperability of faster payment systems with merchant acceptance infrastructure**

Currently, merchants accept different payment types, including those made through multiple card schemes, such as Visa and Mastercard, closed-loop payment schemes, and, in some cases, even EFTs, through common acceptance standards and processing and merchant aggregation. Although PayShap transactions are steadily increasing, high adoption and use of PayShap and RTC by participants and consumers could be realised through the integration of PayShap or RTC at the merchant point of acceptance. Therefore, the interoperability between faster payment system and merchant acceptance/acquiring infrastructure will be mandated.<sup>8</sup> This will allow consumers to make payments by scanning a QR code from their mobile application with the merchant's device, including but not limited to a phone or a POS device.

#### 11.4.6 **QR code interoperability/standardisation**

The emergence and popularity of QR codes in SA led to the proliferation of multiple QR labels in retail establishments as businesses provide different proprietary QR codes to initiate payments, resulting in multiple displays of QR codes by merchants and fragmentation within the QR code ecosystem. Despite this, the use of QR codes in South Africa is substantially low relative to other contactless payments. According to the FinMark Trust's FinScope South Africa Consumer Survey 2022, only 0.2% of South African consumers used QR code payments in 2022. Interoperable QR code payment infrastructure in SA would enable seamless, more secure and accessible transactions between businesses and consumers, simplify daily operations, and support the payment needs of small businesses.

- 11.4.6.1 The SARB will mandate the combination of multiple QR code payment types into a standardised QR code to bring wider choices of payment methods to consumers and enable simpler cashless transactions for both consumers and merchants. A QR code scheme will be established, which

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<sup>8</sup> The acquiring participants will have to ensure that acquiring infrastructure (including merchant acceptance) is enabled to interoperate with the faster payment system.

will be able to seamlessly connect all PSPs, enabling their payment options to be accepted at merchant stores acquired by any scheme member. Merchants will be able to select a single acquirer to partner with, eliminating the need to manage multiple acquirer relationships (sort@source) and perform separate reconciliation processes for each acquirer.

#### 11.4.7 **API harmonisation**

11.4.7.1 As APIs gradually gain popularity, a plethora of PSPs and technology vendors use APIs to enable connections to payment networks or elements of a bank's underlying core systems. APIs are currently being used for, among other things, account validation and compliance screening, although this is not always harmonised across the payment ecosystem. The harmonisation of APIs could facilitate more efficient payments by reducing manual intervention and fostering more timely data exchange across the payments value chain. Furthermore, the adoption of harmonised APIs in payments may be a particular facilitator for the interoperability or interlinking of payment systems and enabling technical enablement of open banking services. APIs can enable interoperability between payment systems without the need to change the underlying technical infrastructures. Two payment systems could connect to a common API access layer or gateway that enables the exchange of payments or transactional information. This would occur on the application/services layer and may be complemented by changes in scheme rules to specify the operational requirements for transactions that go through the API gateway.

11.4.7.2 To enable interoperability between payment systems with APIs, an open API that can be accessed by all PSPs in the NPS will be recommended. The SARB will develop an API harmonisation standard, which will be aligned to the Committee on Payments and Market Infrastructures' API standards. This will enable connection via APIs to the PCH SOs and multiple payment systems. Although the use of APIs will not be mandated, where APIs are used to connect or interoperate, such APIs would be required to comply with the API standards.

#### 11.4.8 **Clearing arrangements for interoperability**

A payment clearing house (PCH) should be developed under a PSMB or an existing PCH should be enhanced to clear the transactions relating to the interoperable remittances and faster payment systems executed through interoperable stores of value. The PCH will be governed by a set of rules, agreements and requirements set by the PSMB.

#### 11.5 **Standards, principles and regulatory frameworks to support interoperability**

11.5.1 The SARB will ensure the revision of the existing and/or development of new regulatory frameworks that have a direct or indirect impact on the achievement of the interoperability goal. The following regulatory frameworks will be revised or introduced to enable and support the interoperability goal:

##### 11.5.1.1 **The NPS Act review**

The revision of the NPS Act will support interoperability through the expansion of access to the NPS. The revision will allow non-bank PSPs to conduct/provide payment activities without the requirement to partner with banks, thus removing barriers to entry into the NPS and promoting the direct participation of non-banks in payment systems such as PayShap, EFT credits, and so forth. The licensing and authorisation framework of the SARB will also support payment system interoperability.

##### 11.5.1.2 **Exemption of payment services from the Banks Act No 94 of 1990**

There are certain payment services activities offered by non-banks that constitute deposit-taking activities due to the pooling of consumer funds, i.e. e-money. The definition of the business of a bank in the Banks Act No 94 of 1990 prohibits deposit-taking by non-banks. The SARB will allow the direct

participation of non-banks into the NPS through the exemption of specific payment activities from the definition of the business of a bank. This will result in the participation of non-banks in the relevant PCHs and interoperable payment streams.

#### 11.5.1.3 **Open banking framework**

The SARB is also considering mandating open banking in the NPS, requiring banks and non-bank payment data holders to share customer-permissioned data to authorised third parties to provide payment initiation and account information services. The SARB will develop a technical API standard or protocols to be developed and adopted to enable the technical connectivity of open banking services. This is aimed at enabling technical connectivity of electronic communication between payment systems and payment networks, without necessarily changing the underlying infrastructures. Widely accessible open APIs would need to be developed.

#### 11.5.1.4 **Faster payments**

In May 2022, the SARB issued the 'Position paper on faster payments in South Africa',<sup>9</sup> which outlines the SARB's support for the development and implementation of interoperable faster payment systems that enable the integration of current close-loop offerings into the interoperable faster payment systems.

#### 11.5.1.5 **Cyber resilience framework**

11.5.1.6 Interoperability requires multiple users to connect to open architectures and systems. This increases exposure to systemic cybersecurity risk exposure as a breach on one participant in the system can impact the other participants. To ensure that cyber risk does not hinder interoperability initiatives, payment institutions should ensure they have robust cyber resilience frameworks that include a set of controls, safeguards and

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<sup>9</sup> *Position paper on faster payments in South Africa, 2022.*

detection measures to protect their systems against cyber threats. The NPSD's cyber resilience framework outlines policy requirements that will contribute to the overall resilience of the NPS, ensuring that interoperability initiatives are implemented in a safe and secure payment environment.

## **11.6 Adoption of common modern global standards**

11.6.1 The wider adoption of global and common messaging standards applicable to the payment services or products, such as ISO 20022, enables seamless communication between payment systems. Interoperability generally requires different systems to implement the same technical standards, such as message formats and data infrastructures (technical interoperability). Technical interoperability does not require each system participant to use the same technology providers. The SAMOS system and the SADC RTGS have migrated to the ISO 20022 messaging standard. Furthermore, PayShap and AC are ISO 20022 compliant. The SARB will gradually mandate PSPs to adopt ISO 20022 to ensure that interoperability is achieved. The adoption of global common standards will:

- 11.6.1.1 ensure that there is interoperability between payment systems through the removal of technical barriers;
- 11.6.1.2 further eliminate proprietary standards, thus reducing the presence of closed-loop systems and promoting the innovation of products that operate in the interoperable payment system; and
- 11.6.1.3 improve the operational resilience of the NPS through the harmonisation of payment systems and by reducing single points of failure.

## **11.7 The proposed regulatory framework to enhance interoperability**

11.7.1 The SARB will develop regulatory frameworks that, at a minimum, make provision for the following:

- 11.7.1.1 the integration of the existing closed-loop systems and elimination of fragmentation within the NPS to enhance the efficiency of payments and consumer payment product/service choice. This will include the mechanism for payment institutions to interconnect and exchange information;
- 11.7.1.2 the execution of transactions in the interoperable payment systems;
- 11.7.1.3 the clearing of transactions exchanged in the interoperable payment systems;
- 11.7.1.4 the settlement of transactions in the interoperable payment systems, including funding model and liquidity requirements;
- 11.7.1.5 data sharing arrangements that are governed by relevant data protection laws, and enable the sharing of consumer data amongst PSPs through open banking, which will ensure technical interoperability, by making use of the API methods;
- 11.7.1.6 a mandate on the adoption and harmonisation of financial crime prevention practices that ensure that interoperable payment systems are not susceptible to increased fraud, and a requirement of PSPs/payment institutions to adopt fraud detection and prevention practices; and
- 11.7.1.7 the anti-money laundering and combating the financing of terrorism requirements outlined in the Financial Intelligence Centre Act No. 38 of 2001, as amended, (FIC Act) for payments participants as included in Schedule 1 of the FIC Act.

## 11.8 **Other measures to enhance interoperability**

### 11.8.1 **Transactional fees and charges**

As stated above, one of the obstacles to interoperability is transactional high costs and fees. The SARB supports competition, innovation, cost efficiency and fee transparency. These are some of the fundamental goals of



Vision 2025. Although the SARB has no pricing mandate, it will engage with National Treasury and the Financial Sector Conduct Authority to consider the extent to which fees and charges may be impacting the adoption and use of payment services. Driving down costs and fees in the NPS will incentivise interoperability.

#### **11.8.2 Interchange fees**

Interchange fees are another incentive for enhanced interoperability. Interchange may encourage interoperability among payment infrastructures or facilities, which is critical for the facilitation of payments. Through this, the public can utilise the opportunity of the available infrastructure or facilities to make payments while PSPs could then compensate one another via interchange for servicing each other's customers. The SARB will continue to determine interchange in respect of existing and new payment streams within the NPS.

#### **11.8.3 Data protection**

Interoperability between payment systems may require new regulations to ensure that data security and data privacy are achieved under the new arrangement. The NPSD will continue to engage its fellow financial sector regulators to ensure alignment in this regard.

#### **11.8.4 The timing of interoperability**

The SARB will set a timeline and end date for when interoperability should take effect. This will provide assurances to payment system stakeholders.

#### **11.8.5 Private and public sector collaboration and readiness**

Achieving interoperability requires collaboration between the private and public sector. The SARB will contribute to the efforts by the payment industry to achieve the policy objective on interoperability. Collaboration can

assist the SARB in determining the extent to which interoperability is achievable based on inputs from the payment industry in relation to the type of interoperability that can best be achieved, i.e. network level or scheme level. The SARB will also consult stakeholders to assess market needs and readiness for participation in the interoperable infrastructure.

## 12. Comments and contact details

Stakeholders are invited to share their comments on this consultation paper by **30 April 2025**. Comments must be sent to the following email address: [NPSDIRECTIVES@resbank.co.za](mailto:NPSDIRECTIVES@resbank.co.za).

## Abbreviations

AC	authenticated collections
Amex	American Express
API	application programming interface
ATM	automated teller machine
CBK	Central Bank of Kenya
Bankserv Africa	South African Bankers Services Company Pty Limited
Diners	Diners Club
EFT	electronic fund transfer
FCH	Fintech Clearing House
ISO 20022	International Organisation for Standardization messaging standard 20022
MMO	mobile money operator
MNO	mobile network operator
NIBSS	Nigerian Inter-Bank Settlement System
NIP	NIBSS Instant Payment
NPP	New Payments Platform
NFC	near field communication
NPS	national payment system
NPS Act	National Payment System Act 78 of 1998, as amended
NPSD	National Payment System Department
PASA	Payments Association of South Africa
PCH	payment clearing house
PCH SO	payment clearing house system operator

POS	point of sale
PPI	prepaid payment instrument
PSMB	payment system management body
PSP	payment service provider
P2B	person-to-business
P2G	Person-to-government
P2P	person-to-person
QR code	quick response code
RTC	real-time clearing
SAMOS	South African Multiple Option Settlement [system]
SARB	South African Reserve Bank
SARB Act	South African Reserve Bank Act 90 of 1989, as amended
UPI	Unified Payments Interface
Vision 2025	National Payment System Framework and Strategy: Vision 2025