



# THE STATE OF INCLUSIVE INSTANT PAYMENT SYSTEMS IN AFRICA

SIIPS 2024 • Case study

PayShap South Africa

## Origin story



### Challenge

Despite high financial account ownership rates, the South African economy still has high levels of cash use. Approximately eight out of 10 retail transactions were conducted in cash before the COVID-19 pandemic (BankservAfrica, 2024). To promote a transition from cash to digital transactions, the South African Reserve Bank's (SARB) National Payment System Framework and Strategy Vision 2025 released in 2018, proposed the establishment of “a flexible payment system architecture to help all stakeholders meet the ever-evolving end-user demands and allow payment systems to become platforms for innovation that are fit for the future.” This conceptualized the instant payment system (IPS) that was established out of the Rapid Payments Programme (RPP), and was underscored by the SARB's Position Paper on Faster Payments, which was released in 2022.

PayShap, which launched in March 2023, is the first phase of this modernized payment system architecture. The objective is to improve access to payment products and enhance financial inclusion by enabling the underbanked to access digital solutions for their financial needs. It also aims to facilitate the safe and reliable onboarding of the unbanked into the payments system.



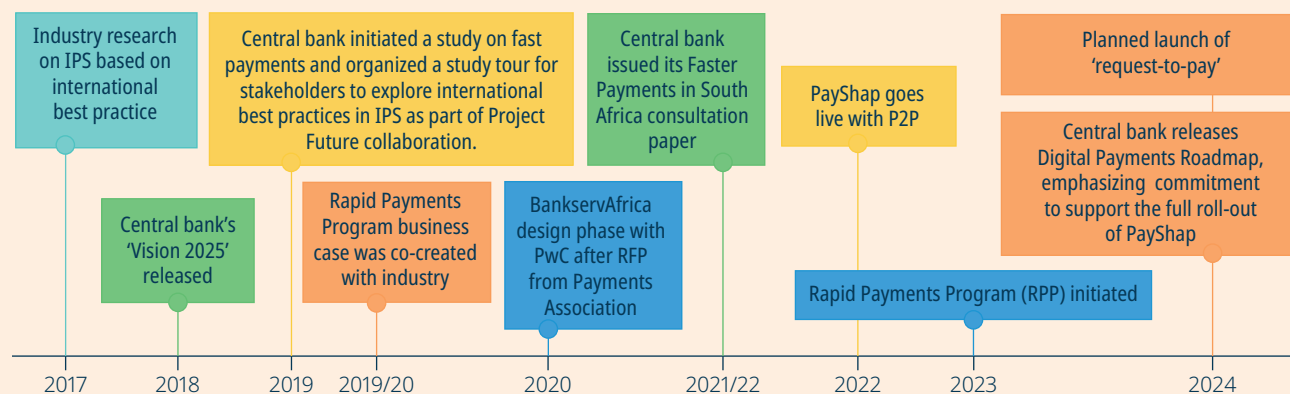
### Adding value

PayShap is the second real-time payment system to launch in South Africa. It joins Real-Time Clearing (RTC), the country's real-time electronic fund transfer system for banks, which was established in 2006. PayShap operates via a credit-push instrument and soon will include the request-to-pay (RTP) feature, expected before the end of 2024. Its value proposition is ease-of-use, immediacy, and interoperability.

For ease, PayShap enables transactions via mobile numbers (ShapID) rather than bank account numbers (though participants could use the account number if they chose). Furthermore, the IPS is finalizing its RTP functionality. The system clears funds instantly.

PayShap is currently available across ten commercial banks and enables interoperability between these participants. As such, it is a bank IPS. The eventual plan pending regulatory amendments to permit direct non-bank participation in the National Payment System, is to enable all-to-all interoperability between all licensed payment service providers (PSPs) in the country, including non-bank PSPs such as mobile money operators.

### The PayShap IPS timeline



Source: BankservAfrica, 2024

In 2017, the Payments Association of South Africa (PASA), the payment service clearing operator BankservAfrica (BSA), the commercial banks, and the SARB commissioned a study on fast payments provision in the country. Stakeholders also embarked on a study tour to understand international best practices in IPS as part of a joint *Project Future*. In 2018, the SARB released its Vision 2025.

In June 2020, the SARB issued its Faster Payments in South Africa consultation paper, followed by a position paper in 2022. Both papers highlighted functionality gaps in RTC and proposed measures to encourage adoption of a future-proofed, faster payments infrastructure. The goal was to modernize the national payment system to better serve consumers and micro, small, and medium-sized enterprises (MSMEs).

In 2021, the management consulting firm PwC was appointed as the Independent Project Management Office (IPMO) to oversee the project, which included the development of the design phase of the IPS. PASA, as the payment system management body, appointed the Special Project Committee (SPC) as the steering committee for RPP. BSA, the Payment Clearing House System Operator (PSO), banks, PASA, and the SARB became members of the special purpose committee, ensuring alignment and cohesion in delivering the minimum viable product. SARB oversaw the IPS in line with its Vision 2025 goals and provided the regulatory framework guiding the onboarding process.

The industry launched the Rapid Payments Programme (RPP) in 2022. The collaborative stakeholder process allowed for in-depth discussions to resolve issues around solution requirements, rules, risk mitigation, and driving alignment with national goals in a context with competing interests. Leveraging the RPP, PayShap was finally launched in March 2023.

As of May 2024, PayShap supports person-to-person (P2P) and some person-to-merchant (P2M)

transactions, where such merchants operate personal bank accounts. Person-to-business (P2B) merchant payments are in planning. No non-bank participants have joined the scheme, partially due to the cautious stance of the SARB and the payments industry around allowing non-bank PSPs to have direct clearing access. However, regulatory reforms are underway that will allow non-banks direct access to the national payments system. As the operator, BankservAfrica has initiated several marketing campaigns for PayShap, but also encourages the IPS participants to market the product and brand to their end users. Marketing by participants is considered essential for enhancing PayShap's visibility and credibility, thereby hastening adoption rates and broadening its user base.

In addition to its ShapID concept of being able to make payments using mobile phone numbers as a proxy, another key value proposition of PayShap is the RTP function, which will allow individuals and merchants to initiate transactions and request payment, rather than waiting for payers to push the payment. This feature has the potential to drastically increase user convenience and reduce payment errors. RTP is set to become available in the latter half of 2024. It is envisioned that RTP will help drive PayShap adoption and enable the system to reach its target of one billion transactions and 688,000 end-user MSMEs by 2027 (BankservAfrica, 2024). As of May 2024, uptake was still in its infancy. BSA collects data disaggregated by new and repeat users, as well as by user demographics, to improve its value proposition.

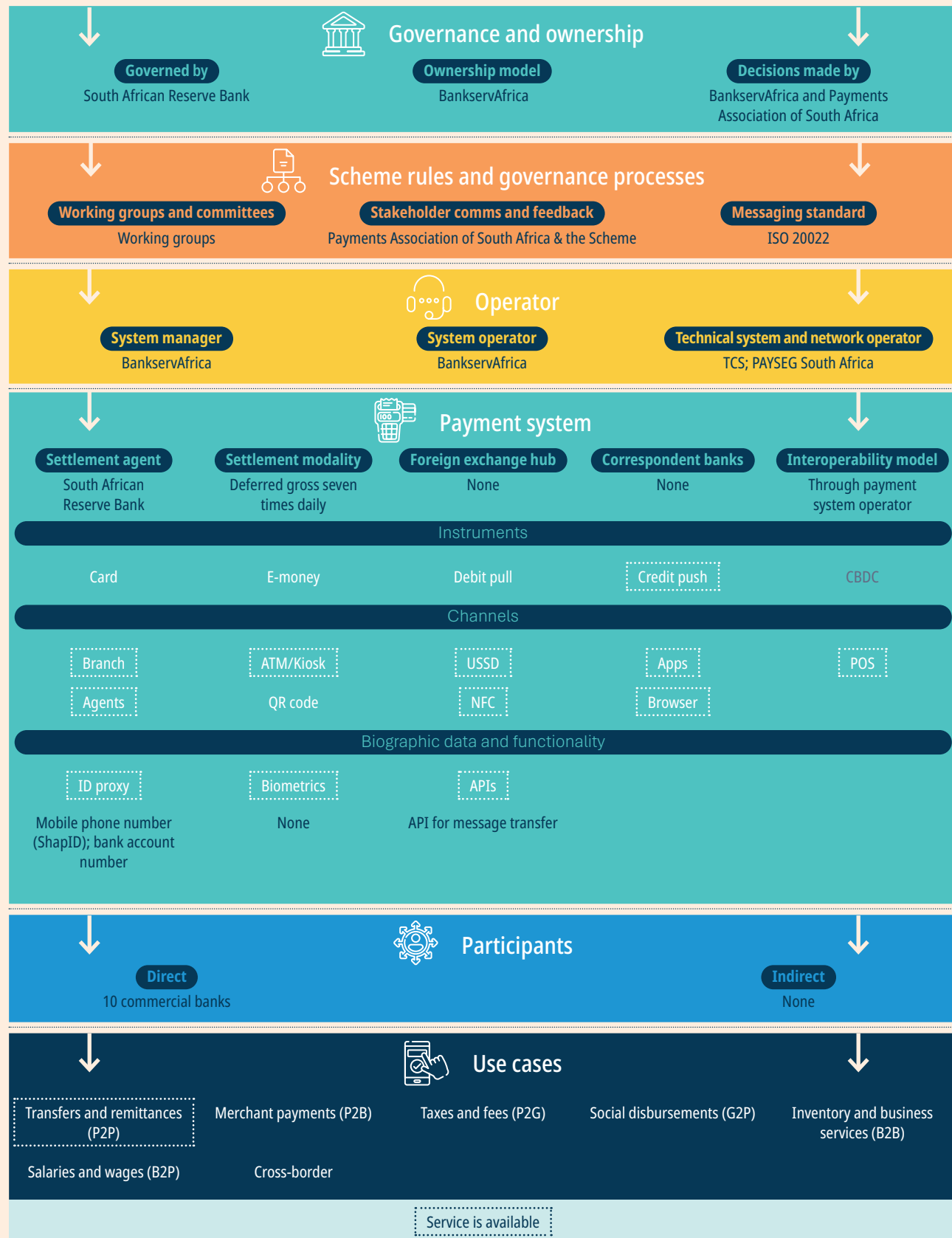
Other expansion plans include integrating non-banks in the system. PayShap also plans to enable quick response (QR) codes to initiate payments as a way to enhance adoption for critical use cases, such as P2B. There are also considerations to link PayShap to the regional Southern African Development Community (SADC) Transaction Cleared on an Immediate Basis (TCIB) cross-border scheme, although no execution plan has been developed yet.



# Governance and operations

## Payment system overview

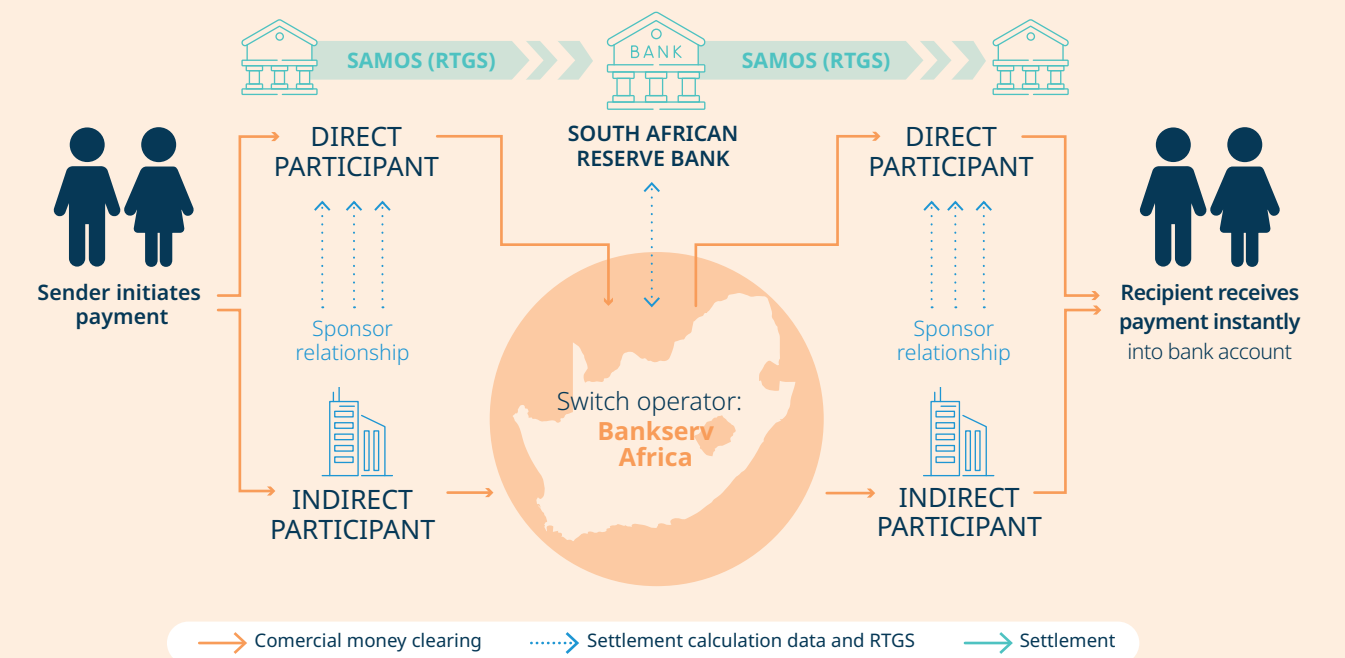
### PayShap model overview



Though PayShap is currently a bank system with 10 commercial bank participants, it aspires to become a cross-domain system. There are no indirect participants as of May 2024, though non-bank PSPs can technically become indirect participants through sponsorship agreement with a commercial banking partner.

In the future, the ecosystem will include banks and designated non-banks as direct participants, and non-banks and various fintech firms as indirect participants, with the central bank enabling payment settlement. Participation is voluntary, with participants opting into the scheme and its associated products. Ongoing engagements with banks form part of the scheme's business development strategy.

### PayShap transaction flow



All transactions via PayShap are in commercial money. The IPS is operated by BankservAfrica, which is owned by commercial banks. BSA built and has operated South Africa's core interbank payments infrastructure since 1972. It also operates RTC and TCIB.

requirements as defined by RTGS at the central bank. PayShap enables credit push transactions via ISO 20022. Application programming interfaces (APIs) play a role in facilitating data sharing among the different entities.

PayShap is targeting transactions of less than South African rand (ZAR) 3,000, or roughly US \$183. It has deployed clearing features and services through cloud architecture. Settlement occurs on-premises between primary and secondary sites, each equipped with hardware redundancy and secure communication lines to SARB's SAMOS, the country's real-time gross settlement (RTGS) system. There are seven settlement windows throughout the day. Transactions have a maximum processing time of 10 seconds. BSA does not maintain pre-funded accounts, but the reserve and settlement accounts are held with the central bank for each participant to meet current settlement

**Governance**

BSA governs the IPS as the system manager and operator. Since commercial banks own BSA, PayShap is participant-owned and industry-led. It operates according to a private-association governance model. PASA licenses the PSO as mandated by the SARB under the NPS Act; PASA has only light involvement in the scheme governance. Decision-making lies with the BSA board of directors, while the Payment Clearing House Participant Group (PCH PG) influences clearing and settlement decisions within the current regulatory



framework. System-related decisions outside this scope are handled by the PayShap Scheme Governance Council. Currently, BSA conducts quarterly sessions with the regulator. PASA is a key custodian of the clearing rules, as it oversees the clearing rules and the PCH PG constitution, and the participant criteria for PayShap. Industry-led scheme rules have the potential to increase the system's value proposition for participants. Given that direct participation is limited thus far to banks, there is less engagement with non-bank PSPs, which may affect inclusivity.

Broader involvement of all licensed PSPs could help PayShap meet SARB's financial inclusion objectives. PayShap's efforts focus on attracting a broader participant base by delivering a compelling product and identifying use cases. Unless designated, non-banks can only participate as indirect participants due to current regulatory constraints. There is an increasing interest from banks in facilitating participation of non-banks, which should foster growth in the PayShap ecosystem (BSA, 2024).



### Functionality

PayShap is a credit push instrument, and the operator expects to enable the RTP service within the 2024 calendar year. PayShap's functionality is designed for smartphone access. There are no restrictions on the channels banks can offer, however, if they support the accepted message standard. This includes USSD.

Mobile numbers serve as the primary proxy identifier, or ShapID. End users need a ShapID to receive a payment, not necessarily to make one. Individual users can link multiple bank accounts to their ShapID; each account would then read 'mobile number@bank name.' End users with only one account linked to their ShapID can receive payments just using their mobile number. Over 2.5 million users have opted into using the ShapID, which eliminates the need for the beneficiary's bank account details (Gavaza, 2024). PayShap is considering adding other identifiers like email addresses or identity numbers in the future.

Payments to account numbers are also available. This method includes a payee verification system that shows the payer a summary of the transaction details they must confirm. The approach is intended to reduce errors.

Enhanced capabilities, including RTP and QR codes are expected to significantly drive demand and end-user value. QR codes are already well established in South Africa for merchant payments via cards (BSA, 2024). RTP functionality will enable additional use cases and broaden PayShap's utility for everyday transactions. RTP will mainly facilitate transactions in the merchant space, allowing service providers such as plumbers or electricians to request payment from customers for services rendered. Such features are user-centric and increase convenience while reducing the error rate.



### Technical standards and use cases

PayShap achieves interoperability through standardized messaging formats, technical rules, and product specifications, all monitored within the ecosystem. The system has adopted the ISO 20022 messaging format, which enables banks to include more data in payment instructions, facilitating compliance with FATF requirements.<sup>1</sup>

BSA is working to integrate use cases beyond P2P, starting with business-to-business (B2B) and merchant transactions. Merchants can already use their ShapID to receive payments, creating a low-value P2B use case in practice, although the transaction is still classified as P2P. The operator would need to make system enhancements to support more use cases and address social needs, which would require stakeholder discussions. South Africa has a large government-to-person (G2P) social assistance program, led by the South African Social Security Agency. G2P payments are already sent to accounts and are not processed via PayShap. Routing them through the IPS could increase habitual use of instant payments and add scale to the system.



### Business model

BSA funded PayShap through a shareholder loan. Cost recovery is integrated into the BSA business model; the system itself does not employ an independent cost recovery mechanism. BSA operates on a mutual basis for scheme operations; the decision about whether to operate as a for-profit rests with the participants. End-user fees are determined by participants, with no standard fee enforced across all of them. Consequently, PayShap's first months saw marked differences in pricing by

banks, with some charging transaction fees above the existing RTC service and others opting to make PayShap payments free below a certain transaction size. Over time, the pricing has converged since high costs to end users deterred uptake. As of 2024, most banks offer free PayShap payments up to approximately US \$5.35 (ZAR 100), thereafter offering tiered pricing models at the participant's discretion.<sup>2</sup>

### Scheme rules



The scheme rules typically outline operational guidelines and compliance requirements. PayShap's scheme rules are currently shared on a need-to-know basis and are not publicly available. End-user recourse mechanisms are not explicitly outlined in the scheme rules. Instead, accountability for fair treatment of end users falls under existing regulatory frameworks. The BSA's website, social media, and "how-to guides" for participants include efforts to educate end users about rights and dispute resolution processes. The participants primarily interact with their customers, though occasional interactions between the scheme operator and the end users occur in response to complaints through social media or other forms of direct contact.



### Volumes and values processed by the payment system

BSA reports monthly through the PCH PG at the PASA meetings, as well as at the governance council. It collects data in real time, with volume and transaction data reported daily and monthly as required. The scheme collects both on-us and not-on-us

transactions; given BSA's other roles as the country's clearing house, not-on-us data collection appears to be somewhat easier. The scheme therefore periodically requests on-us data from participants, but it is not reported. In its first year, the IPS between March 2023 and March 2024 processed over 18 million transactions with a value exceeding US \$588 million (ZAR 11 billion), resulting in an average transaction size of around US \$32 (BankservAfrica, 2024). This is a promising transaction size, as it indicates that the system is used for smaller and theoretically more frequent purchases. At 0.1% of gross national income in 2023, the uptake of PayShap is still limited, especially compared with RTC's utilization, which stands at 23%. There is a risk of competition between these two systems, as they are both offered by the banks. Since RTC has been around for much longer and charges high end-user fees, banks may be disincentivized to push PayShap. We see this in the initial pricing strategies deployed by some of the banks.



### Regulation

Participants of the scheme must adhere to various regulations encompassing but not limited to the [NPS Act](#), [Banks Act](#), [Financial Action Task Force \(FATF\)](#), [AML](#), [Protection of Personal Information Act \(POPIA\)](#), and the [Consumer Protection Act](#). Currently, non-banks have limited involvement in PayShap. The SARB is reevaluating the regulatory framework to enable non-banks to participate and engage in the NPS without bank partnerships. The scheme operates without requiring licensing, though future regulatory amendments may introduce licensing requirements under the NPS Act.

<sup>2</sup> An exchange rate of ZAR 18.7 per US\$ was used, as per [www.oanda.com](http://www.oanda.com) (April 30, 2024).

<sup>1</sup> FATF Recommendation 16 mandates the sharing of sender and recipient information in wire transfers for anti-money laundering purposes (FATF, 2023).

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