









Launch

Modernising and transforming
the payments infrastructure of the
Domestic and Regional
Settlement Services Division
within the National Payment
System Department







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1. Speakers



Lesetja KganyagoGovernor of the South African Reserve Bank

Lesetja Kganyago was appointed Governor of the South African Reserve Bank (SARB) with effect from 9 November 2014. He was reappointed by the President of South Africa for a second five-year term effective 9 November 2019. Prior to his appointment as Governor, Mr Kganyago served as Deputy Governor of the SARB from 16 May 2011 until his elevation to Governor.

Mr Kganyago is the Chairperson of the Monetary Policy Committee and the Financial Stability Committee. He chairs the Committee of Central Bank Governors of the Southern African Development Community (SADC), co-chairs the Financial Stability Board's Regional Consultative Group for Sub-Saharan Africa, and chairs the Financial Stability Board's Standing Committee on Standards Implementation. In addition, he served as the Chairperson of the International Monetary and Financial Committee, which is the primary advisory board to the International Monetary Fund (IMF) Board of Governors, from 18 January 2018 to 17 January 2021.

Before joining the SARB, Mr Kganyago was the Director-General of the National Treasury. He represented South Africa at international organisations such as the World Bank, the IMF, the Group of Twenty (G20) and the African Development Bank. In this role, he served as the Chair of the Development Committee Deputies and also co-chaired a G20 Working Group on the reform of the IMF.

He holds an MSc in Economics from SOAS University of London and a Bachelor of Commerce degree in Economics and Accounting from the University of South Africa. He has also received various training in finance, economics and management.







Tim Masela

Head of the National Payment System Department and Chairperson of the SADC Payment System Subcommittee

Tim Masela was appointed as Head of the National Payment System Department in August 2012, having joined the South African Reserve Bank (SARB) in July 1994. He chairs the Payment System Subcommittee of the Southern African Development Community Committee of Central Bank



Governors and represents the SARB on the Bank for International Settlements' Committee on Payments and Market Infrastructures and the Continuous Linked Settlement Oversight Committee chaired by the Federal Reserve Bank of New York. He holds MCom and BCom degrees and a Graduate Diploma in Computer Auditing. He has also completed a Senior Executive Programme at Harvard University.



Nomwelase Skenjana CA(SA)

Divisional Head of Domestic and Regional Settlement Services

Nomwelase Skenjana is the Head of the Regional and Domestic Settlement Division at the South African Reserve Bank (SARB) within the National Payment System Department. Prior to this current role, she held various positions within the Financial Services Department (FSD) of the SARB, which included roles ranging from financial reporting and taxation, insurance, retirement fund and payroll administration, to budget management and

banking. She has a wealth of experience in the banking and payments industry in her role as 'Banker to Government'. During her tenure in FSD, she served as an employer-appointed trustee in the SARB's Retirement Fund and Acting Chairperson of the Investment Committee for the SARB Retirement Fund.

She serves in various committees and work groups, both local and international, inter alia, the High Value Operational Resiliency Industry Group and the Real-Time Gross Settlement Work Group coordinated by the Bank for International Settlements' Committee on Payments and Market Infrastructures. After completing articles of clerkship with Gobodo Incorporated in 1996, she served as an internal audit consultant at Deloitte and Touche and later joined Telkom SA as an internal auditor. She is a Chartered Accountant and holds BCom and BCompt (Honours) degrees.



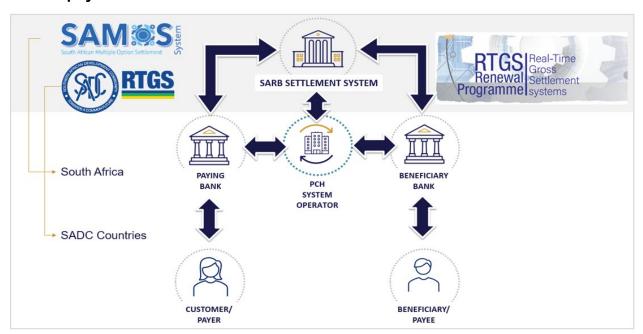




2. Introduction and background

The South African Reserve Bank (SARB) operates the real-time gross settlement (RTGS) system that is used to enable the exchange of value (payments) by members of the public, merchants, and corporate and government entities through accounts held by their banks at the SARB. The domestic payment settlement system has been in operation since 1998, while the regional payment settlement system was implemented by the SARB as a delegated operator, in collaboration with Southern African Development Community (SADC) central banks in 2013. The regional payment settlement system facilitates cross-border payments within the SADC region.

Flow of payments and settlement



Source: Payments Association of South Africa

On 23 June 2021, the SARB launched a renewal programme that will enhance payment services provision for both the domestic and regional financial system. The main benefits that are hoped to be realised include support for enhanced access to payment services through the enablement of wider access by payment services providers, leveraging off technology to improve the adaptability and efficiency of the system (higher speed and lower cost of transactions), and enhanced security of the system to address cyber threats.

With this renewal programme, the SARB aims to achieve the goals of wider access to payment services, enhanced competition through leveraging off technology developments, and cost effectiveness of the system that should translate into lower transaction fees and make the system flexible and adaptable to relevant changes in the financial system.







3. Keynote address, Governor Lesetja Kganyago

Governor's keynote address for the RTGS renewal launch Wednesday, 21 June 2021 at 09:30

For the South African Reserve Bank (SARB), 2021 is a year of big milestones. In a couple of days we will be celebrating 100 years since the founding of South Africa's central bank. This makes us the oldest central bank on the continent, so one can assume we have had significant learnings. Take for example our obligation to operate, regulate, supervise and oversee the national payment system (NPS) and our policymaking responsibility.

In March 2018, the *National Payment System Framework and Strategy: Vision 2025* was published, which set out the goals and strategies for the national payments industry, aimed at building a world-class NPS that serves the economy and the people of South Africa. Since then there has been significant progress in the execution of a majority of these strategic initiatives, as contained in the strategic action plan document.

South Africa has been in the forefront of payment innovation. For example, some of the features of our real-time gross settlement (RTGS) system are regarded as best in class, and have been adopted and implemented the world over. Simply put, the RTGS is the process of the real-time settlement of funds, which occurs individually, on an order-by-order basis, without netting. In other words, your request to transfer or settle funds is carried out immediately, instead of the same happening in batches.

South Africa was also one of the first countries to have a same-day batch clearing capability for electronic fund transfers (EFT), a real-time clearing (RTC) capability, an early debit order collections functionality and, more recently, an authenticated electronic mandate management and early collections capability (DebiCheck).

The SARB's National Payment System Department (NPSD) enjoys a collaborative relationship with many government departments and agencies such as the South African Social Security Agency (SASSA). Since 2012, social grants have been distributed within the NPS.

The NPSD also played an integral part in the collective engagements with SASSA, the banking industry and government when the a new social grant payment solution – and smooth transition – needed to be developed, and provided guidance on the interoperable options available to SASSA within the NPS for consideration when implementing the new grant disbursement solution.







In April 2020, at the peak of the COVID-19 pandemic, the NPSD collaborated to assist government in the disbursement of the Social Relief in Distress (SRD) grant for South Africans.

As a result of the payments industry becoming increasingly innovative and digital, and financial technology (fintech) becoming more advanced and faster, the emergence of new payment methods, technologies, services, risks, participants and 'payment systems' have become increasingly prominent and continue to challenge the traditional payments landscape. The SARB recently embarked on a study to investigate the feasibility, desirability and appropriateness of a central bank digital currency (CBDC) as electronic legal tender, for general-purpose retail use, complementary to cash. This study is expected to be concluded in 2022.

The objective of the feasibility study is to consider how the issuance of a general-purpose CBDC will feed into the SARB's policy position and mandate. The SARB is one of a growing number of central banks looking at the feasibility of the issuance of digital currencies. The study will focus on the issuance of a domestic CBDC that can be used by consumers in South Africa for general retail purposes.

There is a growing trend of connecting RTGSs to improve settlement risk by shortening the cycle for cross-border payments and to achieve straight-through processing. Both domestic and regional RTGSs operated by the SARB are involved in prospective integration projects in various regional formations such as the BRICS Payments System Cooperation for SAMOS as well as the AACB Inter-regional Payment System Integration and the COMESA-EAC-SADC Tri-party Payment System Integration for SADC-RTGS.

The rand's participation in CLS Bank remains a critical payments system for the country, and the NPSD prioritises this function in its RTGS operations to reduce the settlement risk associated with foreign exchange transactions.

Cyber-attacks are increasingly becoming sophisticated in the financial industry, requiring the ability to build robust solutions with embedded cybersecurity controls and strengthened end-to-risk management capabilities to respond to increasing cybersecurity regulations and the operational resilience of financial market infrastructures (FMIs).

The ability to build a robust solution to respond to increasing cybersecurity regulations and the operational resilience of FMIs is critical.







A review of the current RTGS systems was conducted in 2015 as part of the standard fiveyear review cycle to ensure that the current system meets the business needs of FMIs as they improve operational resilience, efficiencies and user demands. In addition, a technology fit-for-purpose review was done.

The business and technology reviews revealed that the current systems are running on old technology that is not future-proof to respond to the transformational changes in the payments landscape, such as regulation and policy, risk and compliance, and technological advances. The transformational changes are embodied in *Vision 2025* and recognised by the Bank for International Settlements' Committee on Payments and Market Infrastructures as strategic goals to be achieved by FMIs and member central banks providing payments services.

This culminated into modernisation a programme for the NPS that covers retail payments, including debit order facilities as most of you are aware, as well as the settlement infrastructures operated by the SARB.

Therefore, the SARB no longer considered the RTGS renewal as a technology refresh but rather a renewal of the domestic and regional payment settlement services. It became necessary to embark on a holistic approach to address all the transitional and transformational changes affecting the domestic and regional payment settlement services.

The new generation RTGS is expected to possess similar qualities to the evolution of technology such as the use of artificial intelligence, improved processing speed, increased capacity and scalability, and improved interoperability and sustainability, which will afford us to leverage off this system for the next 20 years, if we measure it against our proudly South African SAMOS system.

The COVID-19 pandemic has impacted a number of these initiatives and resulted in adjusted times; however, the NPSD continues to refine and evaluate these initiatives to ensure the strategic goals of the organisation are met, as well as the attainment of these goals as envisaged by the Payments Council.

The SARB remains committed to this programme and adequate investment has been set aside for the renewal of both the domestic and regional payment settlement services.







4. National Payment System Framework and Strategy: Vision 2025, Tim Masela

The picture below contextualises the renewal of the RTGS in line with the National Payment System Vision 2025. As a jurisdiction, we have set ourselves nine goals for the broader payment ecosystem. The RTGS Renewal Programme contributes to six of these key goals, namely (i) interoperability; (ii) cost effectiveness; (iii) transparency and public accountability; (iv) regional integration; (v) financial stability and security, and (vi) promoting competition and innovation (achieved by including other payment services providers into settlements to broaden access and positively contribute to financial inclusion in the payments industry).

Extract from Vision 2025: nine pillars of delivery









5. Update on the RTGS programme delivery, Nomwelase Skenjana

The RTGS Renewal Programme is divided into five work packages to enable an agile approach. This allows risks to be addressed while progression is achieved in terms of compliance with regulations and standards as well as innovations in the payments industry to reach the goals as depicted in the *National Payment System Framework and Strategy: Vision 2025.*

The programme work packages are intended to ensure that we continue to maintain our capacity to deliver settlement services while building a cutting-edge solution to advance and position settlement services for the future. This comes with the commitment to maintain the current service levels.









High-level Milestones

Work Package 2 Work Package 1 Lifespan extension for the current ISO 20022 RTGS applications migration This investment aims to the Payments Industry

ensure that the current infrastructure is sustained until the delivery of the new system:

- Mainframe and storage
- · Application optimisation

Payment industry

New messaging platform and standards aligned to Modernisation Project. Version changes to SAMOS and SADC-RTGS are required to enable the

transition.

SADC Payment System Oversight Committee mandated the operator to lead the SADC ISO 20022 migration strategy, plan and implementation.

Work Package 3

Design

Target operating model and architectures

Core deliverables

- · Business architecture
- New target operating model: +L3 processes
- Target state conceptual and logical architecture

Supplementary deliverables

- Detailed re-engineered business processes: L4
- · Business, functional and non-functional requirements specification

Work Package 4

Effective integration layer

Proposals for designs to enable interoperability and accessibility to accommodate a wide range of participants.

Implementation will form part of the integration of both the current and the new applications.

Deployment

Work Package 5

Replacement of core application systems

This entails purchasing or building the solution with a technology partner.

A different acquisition model for SADC-RTGS might be considered.

Calendar year

Q4 2025

Q3 2022

Q1 2023

Q1 2024

Q4 2025







6. What's next?

Industry stakeholders can look forward to the rollout of workshops planned for the remainder of the year. A programme structure will be included in the next communication to provide a view on how the programme will be executed.

Plans are in underway to on-board a Business Design Authority stream intended to serve as an interface between the SARB and the industry on matters relating to requirements at both a strategic and operational level. This is to ensure that the user experience is significantly improved, and channels for collaboration and interaction are open. The structure, under the leadership of Rhona Badenhorst, will be commencing soon.

A Policy and Regulation stream will also be implemented to coordinate and harmonise input from various regulators and to ensure that all regulatory requirements are met.

For enquires and further information pertaining to this programme, kindly send an email to:

RTGS-Programme@resbank.co.za