



Payment Infrastructure Assessment Report

Regional Harmonization of Remittance Policies in the Economic Community of Central African States (ECCAS)

São Tomé and Príncipe

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LIST OF ACRONYMS AND ABBREVIATIONS

AFDB	African development bank
AFI	Alliance for Financial Inclusion
AGER	General Regulatory Authority
AML/CFT	anti-money laundering/combating the financing of terrorism
ATM	automatic teller machine
AU	African Union
ACH	automated clearing house
BCSTP	Banco Central de São Tomé e Príncipe
CDD	Customer due diligence
CSD	central securities depository
COMESA	Common Market for Eastern and Southern Africa
CPLP	Community of Portuguese Language Countries
Db	São Tomé and Príncipe dobra
DFS	Digital Finance System/Service
DGRN	General Directorate of Registries and Notaries (Direcção Geral dos Registos e Notariado)
DSP	payment system department
EFT	electronic funds transfer
ECCAS	Economic Community of Central African States
FSDIP	Financial Sector Development Implementation Plan
FX	foreign exchange
e-KYC	electronic KYC
KYC	know your customer
GDP	gross domestic product
GPs	General Principles for International Remittances Services
ID	identification document
IMF	International Monetary Fund
ISO	International Organization for Standardization
LMICs	low- and middle-income countries
MFIs	microfinance institutions
MFS	mobile phone financial services
MMO	mobile money operator
MNO	mobile network operator
MRP	money remittance provider
NFIS	National Financial Inclusion Strategy 2021 – 2025
NPS	National Payment System
ENRPN	National Strategy for Permanent Birth Registration,
P2P	Person-to-person
PAPSS	Pan African Payment and Settlement System
POS	point of sale
PPP	public-private partnership

PSP	payment system provider
PISPIF	Payment System Infrastructure and Financial Inclusion Project
PSO	payment systems operators
PCI-DSS	Payment Card Industry Data Security Standard
PvP	payment-versus-payment
REC	regional economic community
REPPS	regional payment and settlement system
RSP	remittance service provider
RTGS	real-time gross settlement system
SDG	Sustainable Development Goal
SICOI	interbank clearing system
SIM	subscriber identity module
SMS	short message service
SPOUT	automatic payment system management authority
SPGTR	São Tomé and Príncipe Real-Time Gross Settlement System
STP	São Tomé and Príncipe
SWIFT	Society for Worldwide Interbank Financial Telecommunication
UN	United Nations
UNCDF	United Nations Capital Development Fund
UNDESA	United Nations Department of Economic and Social Affairs
USD	United States dollar
USA	United States of America
WAMZ	West African Monetary Zone
WU	Western Union

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ABOUT THIS REPORT

The scope of this report draws from the policy diagnostic assessment of the Democratic Republic of São Tomé and Príncipe (STP), which identifies key policy areas that require attention to enhance the remittance flows to the STP, including but not limited to the modernization of payment system infrastructures. In this context, the following four key areas have been assessed for the development of modern and efficient payment system infrastructures to enhance remittance flows using digital payment channels:

- Availability of access points for sending and receiving remittances, including automatic teller machines (ATMs), merchant points of sale (POS) and cash-in/cash-out agents.
- Access to the National Payment System (NPS) infrastructures by non-bank remittance service providers (RSPs), including mobile network operators (MNOs), money transfer operators (MTOs) and fintechs.
- Interoperability for key retail payment systems and instruments, including points of sale, mobile money services and agents.
- Connectivity with local, regional, and international hubs, gateways, and multilateral payment platforms.

The report assesses the progress made under each of the four priority areas identified as crucial for NPS infrastructures and provides guidance for future action for both public and private stakeholders to improve the digital ecosystem for increased remittance flows through monitored and regulated digital channels.

LANDSCAPE FOR CROSS-BORDER REMITTANCES IN SÃO TOMÉ AND PRÍNCIPE

REMITTANCE MARKET OVERVIEW

The Democratic Republic of São Tomé and Príncipe (STP) comprises two small archipelagos in Africa's Gulf of Guinea. STP has an estimated population of 200,000¹ people living on 1,000 square kilometers² and a population density of 227.8 people per square kilometer. As of 31 December 2022, 41 percent of the population was under the age of 14,³ and 50 percent of the population were women.⁴ STP is surrounded by water in the Gulf of Guinea. However, the closest commercial city on the continent is the coastal town of Libreville, the capital city of Gabon. Gabon and Equatorial Guinea are the closest mainland countries to STP. All three countries, STP, Gabon, and Equatorial Guinea, are Member States of the Economic Community of Central African States (ECCAS).⁵

São Tomé and Príncipe's diaspora includes some 39,608 migrants, of which 52 percent are women.⁶ Europe is the destination of 57 percent of STP migrants, followed by Africa at 43 percent. Moreover, 19.8 percent of STP's population are migrants, with 52 percent residing in Portugal, indicating some post-independence ties, as STP was a Portuguese territory until 1975. Angola and Gabon receive 17 percent of migrants from STP, the two highest destination countries in sub-Saharan Africa. Regarding inward migration, 2,139 migrants live in STP, of which 50 percent are women.⁷ Ninety-three percent of migrants living in STP are from Africa, especially Cape Verde, which accounts for 57 percent of migrants to STP. This migration route dates back to the abolition of the slave trade in 1875 when contract workers from Portuguese colonies were made to work on plantations in STP. Other countries of origin include Angola (15 percent), Gabon (10 percent), and Equatorial Guinea (6 percent). As of 31 December 2022, inflowing migrant remittances stood at approximately US\$7.71 million or 1.41 percent of the country's GDP, down 30 percent from \$11 million in 2021. Inflowing remittances have consistently dropped over the previous ten years between 2013 and 2022, with the highest 27 million received in 2013 and an average decline rate of about 2 percent after that. Outflowing migrant remittances stood at \$6 million, a ten-year high in 2021 (1.2 percent of GDP), up 66 percent from \$2 million in 2020.⁸ Outflowing remittances averaged \$1.2 million

¹<https://www.unfpa.org/data/world-population-dashboard> (accessed 12 January 2023).

²https://databank.worldbank.org/views/reports/reportwidget.aspx?Report_Name=CountryProfile&Id=b450fd57&tbar=y&dd=y&inf=n&zm=n&country=STP (accessed 10 January 2023).

³ <https://www.unfpa.org/data/world-population-dashboard> (accessed 12 January 2023).

⁴ <https://data.worldbank.org/indicator/SP.POP.TOTL.MA.IN?locations=AO> (accessed 18 January 2023).

⁵ <https://ceeac-eccas.org/en/> (accessed 12 January 2023).

⁶ UNDESA, (2020). *International Migrant Stock 2020*. Population Division (accessed 27 July 2023).

⁷ UNDESA, (2020). *International Migrant Stock 2020*. Population Division (accessed 12 July 2023).

⁸ KNOMAD/World Bank, (2023). (Accessed 12 July 2023).

over ten years between 2012 and 2021. In 2021, the top three remittance-sending economies to STP were Portugal (57 percent), Gabon (14 percent), and Angola (13.3 percent).

EFFORTS BY THE GOVERNMENT OF SÃO TOMÉ AND PRÍNCIPE TO IMPROVE REMITTANCE INFLOWS

São Tomé and Príncipe (STP) has a National Financial Inclusion Strategy (NFIS) 2021 – 2025, whose objectives and recommendations are informed by a demand- and supply-side survey carried out in 2017 by the Central Bank of São Tomé and Príncipe (BCSTP) to determine the levels of financial inclusion. The NFIS identifies four areas, namely, digital financial services (DFS), inclusive green finance, the financial inclusion of women, and customer empowerment and financial literacy. The four areas frame the priorities BCSTP intends to focus on to improve DFS uptake, as well as improve financial inclusion and support remittances. Regarding governance, NFIS supervision is provided by a committee of senior representatives from relevant ministries and government agencies, including the Governor of the BCSTP. The main objective of the NFIS is to ensure the financial inclusion of 70 percent of the population of STP. As a member of the Economic Community of Central African States (ECCAS), STP recognizes the rights and freedoms of movement and the establishment of nationals from other Member States.

In support of remittances, the Central Bank of São Tomé and Príncipe (BCSTP) oversees forex market operations in STP under Law 32/99 of 25 October 1999. The BCSTP also licenses and supervises institutions that engage in forex operations. In a survey carried out by BCSTP in 2020 to determine the impact of COVID-19 restrictions on the financial sector, it was noted that banking institutions reported a 75 percent increase in Internet banking. Internet banking is made possible via the Dobra24 network, a domestic interoperable retail payment infrastructure supporting the interbank network. Dobra24 results from measures implemented by the government to stem the spread of COVID-19 by encouraging digital banking channels and limiting physical interactions in bank branches. Improving domestic interoperability is critical for last-mile remittance delivery.

KEY STAKEHOLDERS IN THE PAYMENTS AND REMITTANCE MARKET

THE CENTRAL BANK OF SÃO TOMÉ AND PRÍNCIPE

The Central Bank of São Tomé and Príncipe (BCSTP) oversees financial institutions. Under the legal framework, Law 9/92 governs financial institutions, Law 17/2018 oversees national payment systems, and Decree-Law 16/2019 oversees service providers and operators. The BCSTP also approved a manual on 14 November 2016 for payment system supervision. The BCSTP also provides requirements for setting up banking institutions, microfinance institutions (MFIs), payment system operators, payment institutions, and forex bureaux. All these institutions are involved in providing remittance services in STP.⁹

BANKS

As of 31 December 2020, STP had five banking institutions, namely Banco Internacional de São Tomé and Príncipe (BISTP), Afriland First Bank-STP, Ecobank-STP, BGFI-STP and Energy Bank-STP. The total bank branches stood at 20, with 94,774 customers and 125,509 bank accounts.¹⁰

NON-BANK REMITTANCE SERVICE PROVIDERS

Non-bank remittance service providers include forex bureaux, licensed by the BCSTP. International money transfer operators like Western Union¹¹ and MoneyGram operate in STP through bank partnerships.

MOBILE MONEY OPERATORS

STP has two licensed MNOs, namely CST¹² and Unitel STP.¹³ However, they do not provide mobile money services. MNOs are regulated by the General Regulatory Authority (AGER).¹⁴ As of 31 December 2021, there were no licensed mobile money operators (MMOs) in STP.

⁹ <https://bcstp.st/Banco-Central?x=1TO4%2Bebti5rf2nJ1j8MKBg==&z=pwDonccsFFyTxv1%2B3AKbZw==> (accessed 12 February 2023).

¹⁰ BCSTP Payment System Report (2020).

https://bcstp.st/Upload/New_DOC/SP/RELATORIO_SISTEMA_PAGAMENTOS_2020.pdf (accessed 20 January 2023).

¹¹ <https://location.westernunion.com/st> (accessed 20 January 2023).

¹² <https://cst.st/PT/pessoal/movel> (accessed 20 January 2023).

¹³ <http://www.unitel.st/> (accessed 20 January 2023).

¹⁴ <https://www.itu.int/en/ITU-D/Regulatory-Market/Pages/Events2014/Sao%20Tom%C3%A9/Home.aspx> (accessed 20 January 2023).

MICROFINANCE INSTITUTIONS

STP has Law 16/2018 that regulates microfinance institutions and other non-bank financial institutions with small- to medium-size operations serving low-income populations. These services include micro-credit, micro-insurance, and micro-savings.

NATIONAL PAYMENT SYSTEM INFRASTRUCTURES

With support from the African Development Bank (AFDB), the BCSTP is implementing the Payment System Infrastructure and Financial Inclusion Project (PISPIF) for the modernisation of the National Payment Systems (NPS). Within the legal framework, amendments have been made to support the project, including the law on electronic funds transfers (EFT), NAP 09/2019, published on 24 July 2019, and Decree-Law No. 16/2019, the legal and regulatory framework for service providers and payment system operators published on 16 December 2019. In the first phase of the PISPIF, the Automatic Payment System Management Company (SPOUT), which was created by Decree-Law No. 01/2017 and Decree-Law No. 06/2017 to operate the NPS, will be supported in the acquisition and implementation of a national switch and a disaster recovery centre. The changes will enable the NPS to attain certification from international card schemes like Mastercard and Visa.¹⁵

LARGE-VALUE PAYMENT SYSTEMS

The implementation of large-value payment systems at BCSTP is yet to commence and will be implemented in the second phase of the PISPIF. The project will support the BCSTP by implementing an automatic transfer system (ATS) incorporating the São Tomé and Príncipe Real-Time Gross Settlement System (SPGTR).

NATIONAL RETAIL PAYMENT SYSTEMS

BCSTP oversees the retail payment system, which includes the Dobra24, debit and credit payment orders, and compensation sub-systems. The Dobra24 network is a shared network of ATMs and points of sale and has been in operation since October 2011. The Automatic Payment System Management Company operates the Dobra24 interbank platform. SPOUT is jointly owned by the BCSTP (61 percent) and the Society of Telecommunications and Commercial Banks (39 percent). SPOUT operates the country's Dobra24 ATM network and has the exclusive rights to operate all POS devices. The Interbank check clearing house is provided by the platform "Sistema de Telecompensation" (SICOI). SICOI is a platform built in-house by the BCSTP by a team of technical professionals using Visual.Net 2005 and MSSQL Server 2005.¹⁶

¹⁵ BCSTP Payment System Report, (2020). Website: https://bcstp.st/Upload/New_DOC/SP/RELATORIO_SISTEMA_PAGAMENTOS_2020.pdf (accessed 20 January 2023).

¹⁶ BCSTP Payment Systems Report 2020: accessed 21 January 2023.

RETAIL/LOW-VALUE PAYMENT SYSTEMS

BCSTP also maintains the country's SWIFT network and financial institutions access the international SWIFT network via the BCSTP's SWIFT Alliance version 7.0. Internet banking is still in its early stages of uptake in STP, with 117,344 domestic transfers carried out at a value of eight billion dobras (around \$353 million). Payment instruments authorised in STP include payment orders, bank transfers, debit cards, Internet banking, and cheques. Financial institutions are developing digital financial services like Internet banking around the existing infrastructure.

PERSONAL IDENTIFICATION CARDS

The General Directorate of Registries and Notaries (DGRN) is an STP agency mandated to coordinate national identification services. Under the National Strategy for Permanent Birth Registration (ENRPN), the DGRN modernizes the country's civil registration and vital statistics systems. Introducing the first-time registration software (CivID1.1) was crucial in increasing registration. CivID is a computerised civil registration and identification system used to record births, deaths, and other important occurrences. An upgrade to CivID 2.0 will add new features such as birth registrations, certificate printing within the same IT system, and mobile access. The DGRN also issues national identity (NID) cards. However, owning NIDs is not mandatory. The biometric information collected to issue NIDs can be used for authentication purposes. However, individual information like the ID number, date of birth, photo ID, and fingerprinting, are visible on the NID. Coverage information for NIDs is not publicly available. For KYC, the NID system is not integrated with retail payment systems. However, it is envisaged the next version up will have a biometric centralized system capable of handling system interfaces with third-party applications.

AUTOMATIC TELLER MACHINES AND POINT-OF-SALE TERMINALS AND CARDS

ATM and POS cards for payments in São Tomé and Príncipe are regulated under the NAP 01/2012 Regulation on the Issuance and Use of Bank Cards. This law governs financial institutions' issuance and management of Dobra24 Network cards. As of 31 December 2021, there were 31 ATMs and 138 POS devices in STP. The Great Water region, a commercial area in STP, accounted for 70 percent of ATM geographical distribution.

REMITTANCE-LINKED PRODUCTS AND SERVICES

As part of the National Financial Inclusion Strategy (NFIS), a demand-side survey carried out in 2017 by the BCSTP with the support of the Alliance for Financial Inclusion (AFI) and Insight2Impact (i2i) shows very low levels of financial inclusion at 24 percent. In this regard, 76 percent of the population of STP over 18 years were excluded from the financial system. Furthermore, 61 percent of adults do not have a bank account for various reasons cited by the survey, where 78 percent considered their income insufficient. The survey results also showed that traditional banking services and formal and informal channels were used for remittances. With low financial inclusion levels, informal remittance channels are the preferred option among low-income earners.¹⁷

The main sending-side corridors for remittances are Portugal, Gabon, and Angola, while the receiving-side corridors are Cape Verde, Portugal, Mozambique, Gabon, and Angola. Banks use correspondence banking partnerships to supply remittance products over the SWIFT network. Three of five banks also provide Internet banking services to their customers and can initiate online remittance transactions.

¹⁷ <https://www.afi-global.org/wp-content/uploads/2021/08/National-Financial-Inclusion-Strategy-STP1.pdf> (accessed 12 July 2023).

ASSESSMENT OF THE PAYMENT SYSTEMS INFRASTRUCTURE FOR DIGITAL REMITTANCES

This section assesses progress made by the BCSTP and market stakeholders to address any hurdles concerning the payment system infrastructure in STP.

RETAIL PAYMENTS ACCESS POINTS FOR SENDING AND RECEIVING REMITTANCES

CONTEXT

The use of transaction accounts for payments and remittances is enhanced by a large network of access points with extensive geographical coverage and a range of interoperable access mechanisms.¹⁸ The existence of a national-level retail payment infrastructure, including automated clearing houses, payment cards, and mobile money switches, can effectively increase the network of access points (e.g., ATMs, points of sale, branches, or agent networks) for individual customers. Centralized payment infrastructures act as hubs for processing interbank transactions, improving interoperability and exhibiting positive network outcomes for all system participants. Any branch of a bank or other PSP participating in the ACH or switch can be used to initiate a funds transfer to a customer of another ACH or switch participant, supporting countrywide reachability, even if a particular bank does not have access points deployed in specific regions. The success of digital remittance services that use retail payment systems depends on customer service and access point availability, quality, and reliability.

THE SITUATION IN SÃO TOMÉ AND PRÍNCIPE

According to the survey carried out by the BCSTP as part of the National Financial Inclusion Strategy, digital financial service uptake is low. This is the case with transactions using ATMs, debit cards and Internet banking only making up 23 percent of the transaction volume, largely due to high costs, complexity, and limited Internet access. Only 3 percent of bank transfers are made through digital financial services, mostly ATMs. The business sector presents a similar picture, with only 1 percent of payments made via digital means. Only three of the six banking institutions offer Internet banking services. Similarly, there are two MNOs (CST and Unitel STP), but neither is licenced for mobile money operations nor is developing a mobile money offering. The existing payment infrastructure is not integrated with identity systems, making it costly for customers to open accounts and use financial services.

¹⁸ World Bank, (2017). *Payment Aspects of Financial Inclusion (PAFI)*. Website: www.worldbank.org/en/topic/financialinclusion/brief/pafi-task-force-and-report.

RECOMMENDATIONS

The recommendations below may serve to improve remittance access points.

1. **The BCSTP could conduct a feasibility of developing mobile money products in STP.** Mobile money is a trusted channel for receiving remittance transfers because of its convenience, speed, security, and reduced costs.
2. **The BCSTP could encourage MNOs and other RSPs to adopt shared market infrastructure to reduce capital investment and operational costs for developing DFS products.** It also reduces the duplication of infrastructure, especially in rural areas. Examples are shared points of sale, ATMs, and interoperable QR code readers.
3. **The BCSTP could draft agent banking regulations and collaborate with the private sector, including SPOUT, to extend the Dobra24 network to support agent banking.** Enabling agents to carry out basic banking operations brings financial services to rural areas where banks have not yet set up branches. Furthermore, if agents are non-exclusive to any financial institution and adopt POS devices interoperable with mobile money once in place, this will improve access to financial services in rural areas.
4. **Responsible authorities like the DGRN could work toward digitizing national IDs and implementing a centralized national ID database.** Afterwards, they can work with the BCSTP to integrate the ID systems with the payment system infrastructure to automate the KYC process. Later, the BCSTP and DGRN could work toward implementing electronic know-your-client (e-KYC) processes.

ACCESS TO NATIONAL PAYMENT INFRASTRUCTURES BY NON-BANK REMITTANCE SERVICE PROVIDERS

CONTEXT

According to the FSB Stage 2 report,¹⁹ “there are clear advantages to promoting direct access to the national payment infrastructures by non-bank RSPs as this reduces the costs for remittances transfers and time it takes to settle these transactions. Lowering barriers to access improves the possibility for PSPs and payment infrastructures to become direct members of multiple payment systems across different jurisdictions. Similar access requirements in different payment systems can encourage PSPs to become global payment players, serving many jurisdictions. Lower cost and higher speed in cross-border payments with lower credit and liquidity risks would be the targeted outcome.”

¹⁹ Building Block 10 describes the importance of direct access. Committee on Payments and Market Infrastructures, (2020). *Enhancing Cross-Border Payments: Building blocks of a global roadmap*. Website: www.bis.org/cpmi/publ/d193.pdf.

THE SITUATION IN SÃO TOMÉ AND PRÍNCIPE

Not all non-bank financial service providers participate directly in the payment systems. Currently, the provision is for banking and microfinance institutions. The country's Dobra24 ATM network is operated by SPOUT, which has the exclusive rights to operate all POS devices. Dobra24 has inadequate management, weak operational and business risk controls, hardware, software, processes, and system security deficiencies, including business continuity challenges. Due to inadequate operational risk management and security, Dobra24 did not attain PCI-DSS certification to enable connectivity with Visa and Mastercard networks.

RECOMMENDATIONS

The recommendations below could be considered to improve the quality of access to São Tomé and Príncipe payment infrastructures.

- 1. The BCSTP could provide all non-bank RSPs direct access to the Payment System RTGS.** This would increase the number of players providing remittance services, enabling RSPs to compete directly with banks. Migrants would benefit as competition stimulates product development and diversification. The cost of remittances could also significantly reduce as fewer players in the ecosystem would be involved in a single transaction.
- 2. Build resilience in critical retail São Tomé and Príncipe payment infrastructures.** The BCSTP could implement measures to improve operational risk management and cybersecurity. The impact of operational incidents could be mitigated, in principle, by building resilience that withstands service disruptions and supports effective business continuity plans. NPS system operators could be required to do the following: (i) adopt rigorous risk management procedures in line with global best practices to identify and mitigate operational risks, including cyber-resilience; (ii) incorporate appropriate redundancy and business continuity arrangements to ensure the timely recovery of services in the event of a major disruption; (iii) establish procedures for timely communication to stakeholders of operational incidents. In addition, the BCSTP could continue conducting periodic, regular disaster recovery drills (both announced and unscheduled) to ensure the effectiveness and resilience of systems operated by SPOUT and the other PSOs based on guidance developed by the Committee on Payments and Market Infrastructures (CPMI) on cyber-resilience²⁰ and other global best practices.

²⁰ Bank for International Settlements and International Organization of Securities Commissions, (2016). *Guidance on Cyber-Resilience for Financial Market Infrastructures*. Website: www.bis.org/cpmi/publ/d146.pdf.

INTEROPERABILITY AND INTERCONNECTIVITY OF DOMESTIC PAYMENT INFRASTRUCTURES

CONTEXT

Interoperability is one of the most desirable characteristics of payment and financial market infrastructures to ensure infrastructure sharing and the widespread availability of digital financial service access points. Whereas the widespread availability of digital solutions for remittances, payments, savings, and credit gives people access to financial services, payment interoperability lets these targeted people transfer money to any other individual without needing multiple transaction accounts, increasing the importance and usability of transaction accounts.

ISO 20022 has become the key global standard for developing modern financial market infrastructures. Currently, most payment systems follow ISO 20022 standards, resulting in improved efficiency, lower costs, and the avoidance of errors. ISO 20022 is a global standard for financial messaging that provides a standard model across business domains such as payments, securities, trade services, card services and foreign exchange. The standard defines messages with clarity of purpose and conveys information between parties within a payment chain. It also defines message specifications for each message type. Benefits of ISO 20022 include the following: (i) **sharing rich information** — ISO 20022 can carry large data sets and messages; (ii) **integrating domestic and cross-border payments** — ISO 20022 can integrate and standardize domestic and cross-border payments in market practices by rolling out standard guidelines; (iii) **interoperability and harmonization** — ISO 20022 enables harmonizing previously known interoperable formats and simplified data consumption and transmission. The underlying syntax of XML and the structured platform makes this standard more feasible for payments; (iv) **greater cost-efficiency** — ISO 20022 makes financial messaging more efficient by standardizing and harmonizing payment message formats, increases straight-through-process rates and simplifies cost-intensive processes such as payment processing, investigations, data analytics and reporting.

THE SITUATION IN SÃO TOMÉ AND PRÍNCIPE

The Dobra24 network, run by SPOUT, is the only network supporting commercial bank ATMs and points of sale. There could be merit in expanding the use cases on the Dobra24 network to include merchant payments and other e-government payment services.

RECOMMENDATIONS

The recommendations below could be considered to improve the interoperability environment.

1. **SPOUT could work with banks and MFIs to expand the use cases on the Dobra24 network.** The network could be updated to support paying bills, services, and other

DFS products like Internet banking. In this respect, the BCSTP could issue guidelines on improvements in transaction infrastructures through the adoption of internationally agreed standards for messaging. An example is ISO 20022. The BCSTP could issue guidelines to participants in the payment system to adopt open Application Programming Interfaces (API). This will encourage RSPs to integrate digital solutions into the NPS.

2. The BCSTP could introduce QR code standardization and interoperability guidelines to banks, PSOs and PSPs (entities responsible for developing their proprietary QR code standards) on the standards to adopt, especially open API use. This process will establish interoperability and outline the intended framework for the standardization process²¹ for QR codes to bring uniformity and provide equal opportunity for all players in the payment space.

INTERCONNECTIVITY WITH REGIONAL AND INTERNATIONAL HUBS, GATEWAYS AND MULTILATERAL PAYMENT PLATFORMS

CONTEXT

Cross-border payments through the correspondent banking model often involve long transaction chains that lead to fragmented and truncated data standards, high capital costs, and weak competition, all of which negatively affect payment speed, cost, and transparency. Interlinking retail payment systems (including fast payment systems) and wholesale payment systems (such as the RTGS) means that PSPs can interact directly through the linked infrastructures, reducing their reliance on traditional correspondent banking. Interlinking arrangements can range from simple agreements on cross-participation to the full technical integration of systems.²²

THE SITUATION IN SÃO TOMÉ AND PRÍNCIPE

The BCSTP maintains the country's only connection to the international SWIFT network, limiting the options for end users, as all banks use the same SWIFT network and keeping the cost of sending or receiving money high. There are existing digital payment gateways with a presence in several sub-Saharan countries that RSPs could collaborate with, like MFS-Africa. MFS-Africa is a digital payment gateway connecting to aggregators, banks, and MNOs, connecting 400 million wallets in 34 countries. Thirty-four of the 40 countries are on the African continent. Another digital payment gateway is Thunes, a global payment network in 130 countries and 79 currencies, providing bank deposits, cash pickup, and mobile wallet interoperability for remittances.

²¹ Based on EMVCo and international standards.

²² Building Block 13 describes the importance of interlinking of different payment systems. Committee on Payments and Market Infrastructures, (2020). *Enhancing Cross-Border Payments: Building blocks of a global roadmap*. Website: www.bis.org/cpmi/publ/d193.pdf.

There are large-value payment system regional integration initiatives like the Regional Payment and Settlement System (REPPS), which provides clearing and settlement for members of the Common Market for Eastern and Southern Africa (COMESA) region. Settlements are in USD, EUR, and GBP currencies, and the system is already operational in the Member States of Mauritius, the DRC, Malawi, Swaziland, Uganda, Zambia, Rwanda, and Kenya.

Another regional integration initiative is the Pan African Payment and Settlement System (PAPSS). The PAPSS is a centralized payment and settlement infrastructure for intra-African trade and commerce payments. It is endorsed by the African Union (AU) and is being developed in collaboration with the African Export-Import Bank (Afreximbank). PAPSS is currently live in the West African Monetary Zone (WAMZ) in the central banks of Nigeria, Ghana, Liberia, Sierra Leone, the Gambia, and Guinea, using six local currencies and two languages.²³ Its unique offering supports instant payments in local currencies with settlement finality supported by Afreximbank.

RECOMMENDATIONS

The recommendations below could be considered to improve the interconnectivity with local and regional multilateral platforms.

1. **The BCSTP could participate in large-value regional cross-border payment system initiatives.** Examples are REPPS and PAPSS. A precursor for SME cross-border payment systems such as REPPS would be joining and participating in the regional economic communities relevant to STP's vision and strategy.
2. **The BCSTP could encourage domestic mobile wallet operators like banks to integrate with digital payment system gateways.** Establishing connectivity with international hubs and gateways will facilitate greater access to digital payment channels. Such service aggregation platforms and remittance hubs enable RSPs to scale quickly and not incur disproportional operational and regulatory costs. These platforms and remittance hubs also have the potential to facilitate access points and the cost of the transaction by facilitating a high number of low-value/low-fee transactions through many access points (or accessible remotely through the Internet or mobile networks).

²³ <https://papss.com/> (accessed 14 December 2022)

ABOUT ECCAS

The Economic Community of Central African States (ECCAS), created in 1983, comprises 11 Member States—Angola, Burundi, Cameroon, Central African Republic, Chad, Republic of the Congo, Democratic Republic of the Congo, Gabon, Equatorial Guinea, Rwanda, and São Tomé and Príncipe. It is one of the five development zones on which the African Union (AU) intends to build continental cooperation and integration.

According to its statutes, ECCAS' mission is to foster political dialogue in the region, establish a regional common market, set common sectoral policies, foster and strengthen harmonious cooperation and balanced and self-sustaining development in all areas of economic and social activity, especially in the fields of industry, agriculture, natural resources, infrastructure, trade, customs, monetary and financial matters, and tourism.

ECCAS member states adopted a strategic plan for integration and a strategic vision in October 2007. The vision is to create by 2025 "a stable, prosperous, united, economically and politically united Central Africa" to make the region an area of peace, solidarity, and balanced development, with free movement of people, goods, and services.



ABOUT UNCDF

UNCDF mobilizes and catalyzes an increase in capital flows for SDG impactful investments to Member States, especially Least Developed Countries, contributing to sustainable economic growth and equitable prosperity.

In partnership with UN entities and development partners, UNCDF delivers scalable, blended finance solutions to drive systemic change, pave the way for commercial finance, and contribute to the SDGs. We support market development by enabling entities to access finance in high-risk environments by deploying financial instruments, mechanisms and advisory.

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