



# eKash: Independent Innovation in Inclusive Instant Payments

## THE CONTEXT

In 2018, Rwanda's economy was primarily cash-driven, and its digital payments landscape was highly fragmented, making it inaccessible, expensive, and unreliable, especially for rural and low-income communities. For many people, sending money still came with practical hurdles. While Rwanda had made significant progress in digital payments, challenges such as high transaction costs, a fragmented

ecosystem, limited interoperability, and inconsistent access to real-time liquidity meant that payments were not always seamless or affordable.

The Rwanda National Digital Payment System (RNDPS) initiative began in 2018 to address these payment system challenges as part of the country's larger economic development strategy, known today as Vision 2050.

## THE CONTEXT (CONTINUED)

RNDPS focused on creating an interoperable retail instant payment system (IPS) to serve as the foundation of the country's digital financial infrastructure. Spearheaded by a coalition including the Central Bank of Rwanda (BNR), the Ministry of ICT and Innovation, and RSwitch, Rwanda's national payment switch, RNDPS culminated its first phase in 2022 with the launch of eKash.

eKash was originally built using the ISO 20022 messaging standard to connect to participating institutions. By 2023, eKash included both commercial banks and mobile money participants, and supported the person-to-person (P2P) use case. Yet the coalition recognized that eKash needed a more agile technological foundation, one it could independently scale and evolve, without relying on proprietary software or third-party solution providers. Rwanda also wanted full ownership of a system designed for its own needs and built to serve every Rwandan.

This brief highlights key lessons from the second phase of eKash's evolution, focused on transforming its technical foundations and governance model toward a more sustainable, sovereign system.

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**We used to have challenges with settlement delays, specifically for MFIs and SACCOs. It wasn't real-time. There was also a lack of visibility: you couldn't know where the transaction was. Today, those issues are no longer there because of eKash.**

*Joselyne Mutesi Mugire,  
Head of Payments, Ecobank Rwanda*







## THE APPROACH

Back in 2022, AfricaNenda began working with Rwanda to support its efforts to improve and evolve eKash to drive greater sustainability and financial inclusion. AfricaNenda provided end-to-end technical and operational support to define the desired architecture, scheme governance, business model, cost analysis, and implementation planning. This included hands-on collaboration with RSwitch, the Rwanda Information Society Authority (RISA), MINICT, and BNR teams to build local skills and strengthen Rwanda's ability to optimize and maintain the system independently.

Supported by the Gates Foundation, AfricaNenda and RSwitch collaborated to align policies, explore technical assistance opportunities, and propose incentives for participants. The latter included subsidized onboarding for smaller institutions. Such measures were intended to ensure equitable onboarding, broaden ecosystem participation, and accelerate adoption, while maintaining eKash's long-term sustainability.

Rwanda decided to base the upgraded system on open-source technology by Mojaloop, believing it would be easy to customize and scale, and could handle the full range of possible use cases. Rwanda would fully own and optimize its implementation without incurring licensing or

change-request fees. Rwanda also believed that open-source technology would perform more efficiently than alternatives and bring the added flexibility of local optimization, which is aligned with Rwanda's vision of technological sovereignty, enabling the country to control its infrastructure without depending on external vendors. This approach is also consistent with AfricaNenda's advocacy of affordable, interoperable, and locally owned digital payment infrastructure.

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**Our biggest challenge was aligning all players under a single set of scheme rules. Interoperability means connecting actors with different business models and priorities. Bringing everyone to the table and listening to their needs was essential to designing rules that work for all.**

*Blaise Pascal Gasabira, CEO, RSwitch*

# THE eKash APPROACH TO IMPLEMENTING OPEN-SOURCE TECHNOLOGY



eKash undertook the transition to open-source technology as a multi-stakeholder collaboration guided by strong political leadership. Two core principles guided the implementation:

**Continuity of service delivery to ensure existing systems and participants remained operational with no interruption during the transition.**

**1**

**Sustainability through local capacity to enable long-term independence through skills transfer. This ensured that all technical aspects were implemented solely by Rwandan teams, reinforcing local ownership and independence.**

**2**

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**We are proud to see all major players connected to the eKash infrastructure, enabling seamless P2P, P2M, and P2B transactions. What was once a vision is now a reality that makes life easier for businesses and end users alike.**

*Blaise Pascal Gasabira, CEO, RSwitch*

Technology replacement projects at this scale require careful planning. Each design choice, whether technical, business, or procedural, had to serve the goal of interoperability while optimizing resources and maintaining continuity in the existing system. Tracking progress, minimizing team overlap, and Agile project management helped ensure the project met its milestones.

With assistance from AfricaNenda, Rwanda structured its deployment strategy around the following four core workstreams, which it executed concurrently to coordinate development:

1

**Technology development and integration,**

including a gap analysis of the existing platform, architecture design, module development, hosting infrastructure design, process workflows, testing, and phased rollout of the new switch.

2

**Scheme operations,**

including efforts to define scheme governance, operational guidelines, participation criteria, dispute management, and fraud monitoring capabilities, as well as risk and compliance mechanisms.

3

**Market engagement and adoption,**

including stakeholder coordination, user education, and change management to drive ecosystem uptake. This workstream is especially important for building trust with smaller providers and ensuring end users understand the value of the system.

4

**Business and financial modeling,**

including establishing pricing structures, pricing principles, cost recovery analysis, and sustainability plans.

The multi-track model of maintaining existing services while building the new platform ensured that service continuity and transformation advanced in parallel, demonstrating how countries can modernize national payment infrastructure without compromising reliability or inclusivity.

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**Across the continent, central banks and national switches are seeking to build and own the infrastructure that underpins their financial and payment ecosystems. eKash has become a regional reference point for countries combining innovation and self-reliance with inclusion in the payments sector.**

*Robert Ochola, CEO of AfricaNenda*



## THE OUTCOME

A revamped eKash launched in February 2025, supporting both the original person-to-person (P2P) use case and the newly added person-to-business (P2B) use case. From launch through September 2025, the new system has processed:

**1.5M** transactions per month

**4B** monthly transaction value in Rwandan francs (~\$3.08 million USD)

**+40%** increase in monthly transaction volumes compared with 2024<sup>1</sup>

SPECIFIC TO THE PERSON-TO-BUSINESS (P2B) USE CASE:

**800+** merchants had received payments

**25,000** merchant transactions processed

**1.4B** Rwandan francs transacted (\$1.08 million USD)

For participating payment service providers, eKash has brought benefits in the form of more affordable service costs coupled with greater market access.

<sup>1</sup> AfricaNenda uses the World Bank Atlas Conversion Method to convert data reported in local currencies into USD for consistent reporting. This method smooths exchange rate fluctuations by applying a three-year, inflation-adjusted moving average.

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**It widens the pie. eKash costs us less to offer the same service, because we are sharing the costs of this infrastructure. That helps to focus more on innovation, because building products for off-net customers is already taken care of. We can focus now on what more we can provide.**

*Jean Claude Gaga, Managing Director, Airtel Mobile Commerce*



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The way business was before, it was only cash, and we were struggling with counting money. Sometimes it disappeared. We are lucky to have eKash now, because we do business and the money goes directly where it's supposed to be. It helps me a lot because even customers without cash or a card can pay.

*Joel Rugamga,  
eKash merchant, Kigali*

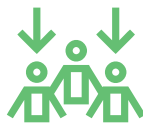
## IMPLEMENTATION LESSONS

Each phase of eKash's upgrade and improvement effort required vision, institutional alignment, and collaboration to produce tangible progress. eKash highlights the important role of:



### **Strategic alignment and policy leadership:**

Aligning national payment initiatives with broader development goals ensured coherence, accountability, and sustained momentum. Transparent decision-making, shared accountability, and inclusive scheme forums helped foster trust between public and private stakeholders.



### **Technology sovereignty and local capacity building:**

Open-source systems have the potential to improve flexibility and reduce costs. However, they require investment in local technical skills. Rwanda addressed those investments by focusing on local capacity-building. AfricaNenda facilitated this effort by providing technical resources and enabling peer-learning opportunities.



### **Market incentives and financial inclusion:**

Creating buy-in for shared infrastructure required clear value propositions, incentives, and market benefits. eKash integrated MFIs, SACCOs, and fintechs through tailored onboarding, subsidized integration, and technical assistance, ensuring the system served every segment of Rwanda's financial ecosystem.



### **Iterative implementation:**

eKash's phased rollout enabled continuous testing, learning, and refinement. This iterative approach sought to minimize risk, ensure readiness before scaling, and build institutional learning cycles that would benefit future deployments.

## WHAT'S NEXT

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Looking beyond 2025, AfricaNenda will continue to support eKash as it implements additional features and use cases, including G2P and business-to-person (B2P) bulk payments, P2B merchant payments using QR codes, cross-border remittances, and improved cash-in/cash-out services.

Rwanda offers a replicable model for countries pursuing similar ambitions, particularly those aiming to create an enabling environment for financial inclusion at scale using open-source, in-house-developed, and nationally operated systems.

AfricaNenda Foundation is committed to helping countries accelerate the development of inclusive instant payment systems for all Africans. Reach out to learn more about how we can work with you.

**What the move to eKash has allowed us to do, especially for the underbanked, is work with SACCOs closely and give them those channels that they probably didn't have access to. What wasn't possible then is possible now.**

*Christophe Banga,  
Product Manager, MVEND*







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