

Remote Transaction System

Solution brief



The Remote Transaction System (RTS) allows microfinance institutions to extend financial services to low-income customers living in rural areas by increasing access to convenient locations for secure and affordable financial transactions. The RTS solution also increases transparency and data integrity for institutions using a group lending methodology.



Meeting a global need

Key features and benefits

- Extends outreach of microfinance institutions to rural and peri-urban areas
- Improves operational efficiency
- Improves data integrity
- Increases security
- Lowers transaction costs

Increase the scale of microfinance

Microfinance providers offer the poor financial services, including credit to help them manage risk, build assets, increase income and enjoy a better life. Microcredit provides small loans, as low as \$100 each to candidates who have not traditionally been served by commercial banks, or who have been unable to access such services. These loans allow recipients to buy the tools, basic equipment and merchandise required to operate their small, micro business.

Currently 50-80 million people have access to, and take advantage of, microfinance programs. The World Bank estimates that this number could reach more than 500 million people if the microfinance industry can overcome barriers to growth, especially poor infrastructure, limited access to funding and operational inefficiencies. The RTS responds to these needs.

The RTS solution was developed by a consortium of public-private microfinance leaders, technology specialists and business thinkers, convened by HP. It helps increase the scale of microfinance delivery by addressing issues related to operational costs, rural outreach, and capital flow.

A pilot program

The RTS solution was developed and launched as a pilot program in Uganda in January 2004. The goal of the pilot was to leverage technology to improve operational efficiency and data integrity while extending the reach of participating institutions. The RTS Uganda pilot tested three models of microfinance efficiency.

The solution has proven to be very useful for institutions using both traditional group lending and individual lending models. Financial analysis of two of the models showed positive return for the microfinance institutions and their customers.

The pilot provided valuable lessons about scale:

- Business process improvement is as important as technology innovation
- High-level management buy-in and ownership across the organization are necessary for success
- Scale at an industry level will require standardization and shared infrastructure in addition to competition

Solution overview

The RTS was developed from the ground up using a combination of wireless technologies, smart cards, standards-based software, commodity PCs and business processes. It enables loan payments, cash deposits and withdrawals by microfinance clients through a network of agents that can either be microfinance staff or independent third-parties.

For individual borrowers, the RTS solution increases access to financial services and saves travel and expenses by providing a wider network of points of access to funds. It also helps reduce transaction costs by allowing borrowers to bank at convenient times and locations.

The Remote Transaction System provides microfinance institutions with a cost-effective way to scale up services in rural areas.

In a group lending model, clients have greater visibility to their account balances. Group meetings can also be shorter since manual recording is no longer required.

The RTS facilitates the electronic capture of transaction data at the client level for participating microfinance institutions. Over time, it builds the client history necessary for the creation of credit bureaus and credit rating systems.

Among other advantages, the RTS provides microfinance institutions with:

- A cost-effective way to scale up services in rural areas even where they do not have branch networks or intermediating commercial banks.
- Improved data standards and information transparency, which helps the institution manage their portfolio as well as their risk.
- Reduced cost of business that becomes more significant as the institution attempts to scale and transition to individual client data tracking.

Components and capabilities

Hardware components

The RTS was developed exclusively for the needs of microfinance clients living in rural areas. It introduces a low-cost transaction framework that can transmit information from areas where there is limited electricity and/or connectivity.

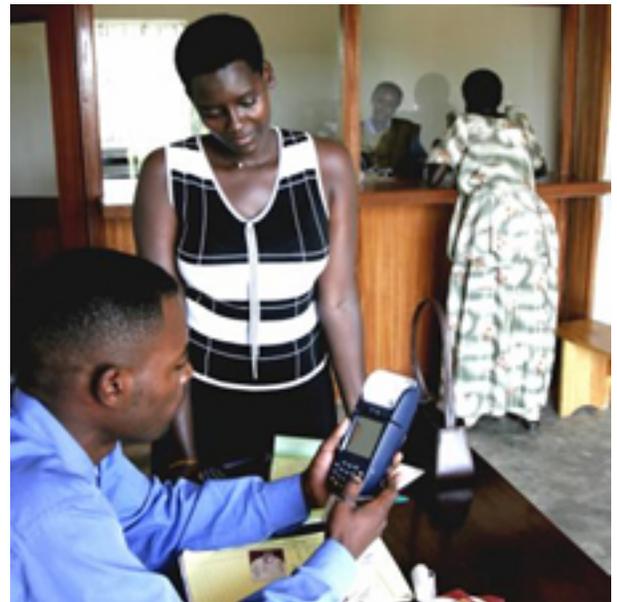
The hardware components of the RTS include:

- A point-of-sale (POS) device consisting of:
 - Smart card reader to authenticate client and agents
 - Numeric key pad to permit transaction requests

- A device interface that requires minimal literacy
- Printer to provide paper receipts to the client and agent as proof of the transaction
- Battery power that lasts more than 12 hours
- Built-in capability to connect through the cellular (GSM) infrastructure
- Transaction server that connects to the MFI back-office

Other important features include settings that minimize power consumption and the capacity to save transactions on the POS device. These transactions can be uploaded later to save airtime charges.

The solution includes a communication channel that links the back-end server (running Java™ 2 Enterprise Edition) to the back-office system of the microfinance institution. MFI accounting staff use a web-based interface to view transaction histories and manage their client accounts.



Capabilities

The RTS allows cardholders to perform loan payments, savings deposits, or withdrawals, and fund transfers, and to check account balances. In the future, users will be able to pay bills and potentially even transfer funds to other individuals.

Benefits

The RTS was optimized for reduced cost, reliability, and simple technical requirements, uniquely positioning the technology relative to other POS solutions available today.

To learn more

Visit <http://www.hp.com/go/microfinance>
or <http://www.sevaksolutions.org>.



Organizational Partners

echange, LLC www.globalechange.com	echange works to create positive global change by bringing social enterprises access to business and technology solutions that help scale operations. Through an integrated, holistic approach to leadership and change management, organizations benefit from the power of innovating the way they do business. echange was founded in response to a shortage in the microfinance industry of technology expertise and human resource training.[]
ACCION www.accion.org	ACCION International is a nonprofit organization that provides the self-employed poor with loans, other financial services and business training to help them work their own way out of poverty with dignity and pride. A world-pioneer in microlending, ACCION made the first microloan in Brazil in 1973. Today the ACCION Network of microlending institutions serves 1.5 million borrowers in 22 countries in Latin America, the Caribbean and Africa.[]
BizCredit, LLC	BizCredit, started in 2000, is a social enterprise focused on scaling access to microloans via the Internet or related technology. BizCredit seeks to make a positive social impact by providing access to financial services for businesses. BizCredit seeks to make a positive social impact by providing access to financial services for low income entrepreneurs, while using technology to achieve the market penetration and operating efficiency of the traditional financial services industry.
FINCA International www.villagebanking.org	FINCA International provides financial services to the world's poorest families so they can create their own jobs, raise household incomes, and improve their standard of living. FINCA delivers these services through a global network of locally managed, self-supporting microfinance institutions.
Freedom From Hunger www.freefromhunger.org	Freedom from Hunger is an international development organization working in sixteen countries across the Globe. Freedom from Hunger brings innovative and sustainable self-help solutions to fight against chronic hunger and poverty. Together with local partners, FFH equips families with the resources they need.
Grameen Foundation USA www.tech.gfusa.org	Grameen Foundation USA is working to eliminate poverty by leveraging the power of microcredit coupled with information and communication technology. Grameen Foundation USA builds on the work of the Grameen Bank of Bangladesh, the Grameen family of companies, and Grameen Bank replications in more than forty countries.
PRIDE AFRICA www.prideafrica.com	PRIDE AFRICA (PA) is a US non-profit (501-c-3) company with regional offices in Nairobi Kenya. PRIDE AFRICA concentrates on research and development aimed at developing new ideas, products and platforms to mainstream the poor. Its mission is to create a commercially sustainable financial and information services network in Africa.

Partners in Uganda

Bushnet www.bushnet.net	Bushnet is a limited liability company incorporated in Uganda in 1996 and in Kenya in 1999. Bushnet was formed to provide the first commercial application of the Deep Field Mailing System, a technique of transmitting data over HF radio that was developed for the World Food Programme by founding directors of Bushnet. Bushnet's strengths lie in data (IP) and wireless (RF). Bushnet has invested heavily in research and development, and in training highly competent Ugandan and Kenyan teams, while installing robust networks for leading corporate entities in the region, including key government entities.
FINCA Uganda www.villagebanking.org	FINCA Uganda, one of FINCA International's three pilot transformation programs, has been instrumental in crafting legislation that will allow Village Banks and other microfinance lending institutions to accept savings deposits; make individual savings and loan products available; and receive loan payments directly rather than having clients make payments through a commercial bank.
FOCCAS	Freedom from Hunger's collaborating partner in Uganda, FOCCAS (Foundation for Credit and Community Assistance), was established in 1993 to initiate long-term, self-help solutions to the poverty affecting millions of people in Sub-Saharan Africa.
Uganda Microfinance Union	The mission of Uganda Microfinance Union (UMU) is to provide quality financial services to Uganda's low-income entrepreneurs. The organization aims to become a permanent, sustainable financial institution in order to allow low-income people the opportunity to help themselves.

To learn more

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