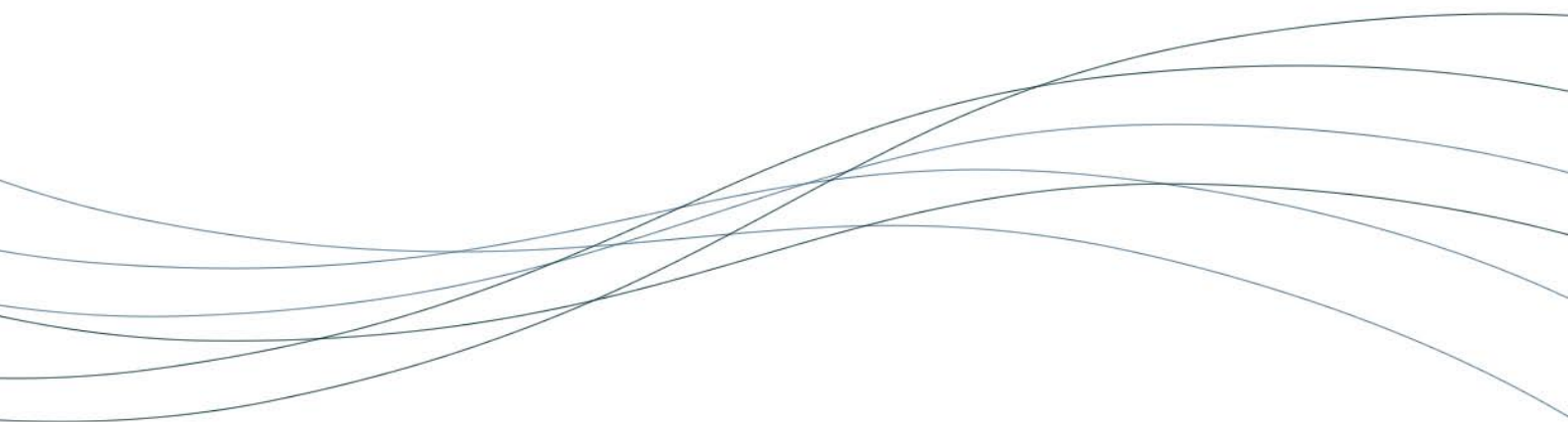


# Microfinance Open Network Exchanges: *Powering Next-Gen Microfinance*

White Paper



# Preface

Microfinance is one of those ideas that hold significant promise for changing the lives of the world's poor. It is one of those few ideas that have universal interest and where almost everyone wants to do their part to make it fly. From Grameenbank's breakthroughs in Bangladesh to other microfinance beachheads in the emerging markets of Africa, Asia, and Latin America, there is great hope that one or more of these will be key flywheels to bringing basic financial services to any poor person or micro entrepreneur that is in dire need.

Sun Microsystems and EXICON have provided technology and strategic advice respectively to key players in the microfinance ecosystem, and view themselves as key stakeholders in unleashing the potential of microfinance. Recently, experts from both Sun and EXICON met to assess the future of microfinance and break down the critical challenges facing the MF marketplace currently. The joint view is that microfinance is now hitting a wall and that the current ecosystem model and design characteristics, while still effective and "workable" today, inherently limit the ability to grow and scale and be even lower cost and more sustainable in 5 or 10 years time.

The joint team thus decided to collaborate and draw out what a "next-gen" microfinance ecosystem would need to be based on and designed against in order to prevent silos from forming, and to allow for efficient and low cost technologies, infrastructure and processes to drive sustainable and affordable basic financial services. It is both Sun's and EXICON's belief that this new ecosystem would need to be first be fully "open" and make that its defining characteristic. It would need to grow out as a "network" similar to how the internet has changed the world. And it has to leverage the ubiquity and pervasiveness of "mobile" to drive reach not only to end-customers on the demand-side but also to MF product providers on the supply-side.

This paper shares the resulting thinking and recommendations from that collaboration, and aims to start the conversations, decisions, and actions required to make next-gen microfinance a reality.

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## *Sun Microsystems and EXICON*

# Executive Summary

There is strong consensus that the microfinance industry in its current state will not be successful in achieving its aggressive goals of maximizing financial inclusion and delivering basic financial services down to the bottom of the population pyramid. Several factors including the policy framework, the current business model, the absence of a path to sustainable scale, and the reliance on manual and “high touch” processes, collectively act as virtual quicksand for this sector.

This paper shares how mobile money and related microfinance ecosystem policy and model changes can allow microfinance to further penetrate the base of the pyramid and maximize financial inclusion.

Key emerging recommendations include:

- 1) Developing "microfinance open network exchanges" that drives financial efficiency and allows any microfinance product originator to serve any mobile sub in that country i.e., be both telco-agnostic and bank-agnostic
- 2) Building in financial "interconnection" ubiquity across the target customers, so they can send or pay money to anyone in that market that they can call or SMS with their mobile phone
- 3) Leveraging the existing mobile prepaid top-up agent infrastructure to drive cash in/ cash out points of presence that blanket the country and maximize utility and financial inclusion
- 4) Defining and vetting the blueprint for a Microfinance Open Network Exchange (MONEx) that can fill the gap in the current ecosystem for a combined catalyst and operational enabler and accelerate implementation of the three recommendations above

Going forward, there is a need for an influential non-government organization or similar entity to be an evangelist and advocate and convince target governments and potential local partners, such as mobile telecommunications and banking/microfinance players, in specific countries to pilot the MONEx concept. Additional resources from strategic advisory, technology, and financial policy contributors can be leveraged to support the required blueprinting and a subsequent pilot implementation.

## Microfinance today

There has been a significant shift in focus over the past few decades to expand the penetration of economic development to the 3 billion people worldwide who live on less than USD 2 per day. In particular, NGOs and multilateral organizations have been working with both governments and financial institutions to setup almost 10,000 microfinance institutions (MFIs) to democratize financial services and thereby broaden the economic growth base. As a result, more poor people are now able to improve their incomes, save money outside the household, make loan payments, and reduce their vulnerability to economic shocks.

Successful “inclusive” microfinance business models such as those of the Nobel Prize-winning Grameen Bank in Bangladesh are being replicated in the poorest regions worldwide. Significant capital has been driven into the MFI pipeline to fund an estimated USD 30 billion of loans to 150 million active clients. Investments in capability building, training, technology, and supporting processes and infrastructure have also contributed materially to the rapid growth of microfinance. These prove that the extreme poor can be bankable, that they will repay loans (95-98% repayment rate), and have very low default rates despite relatively high interest rates.

MFIs, banks, and the private sector have now realized that there is a viable and profitable market for basic microfinancial products among the unbanked and underbanked population of the world. This sector has an annual growth rate of almost 30 percent and, in some cases, boasts a return on assets of 2.5% -- on par with, if not better than, traditional banks that serve the top of the pyramid.

However, there is an equally strong consensus that the microfinance industry as a whole is falling short. 70-80% of the world's population continue to have no access to basic financial services. There continues to be 60% of the world's population living on only 6% of world income. There continues to be half of the world living on USD 2 per day or less, with 1 billion of these living in extreme poverty and less than USD1 per day. Yet almost half a billion of these unbanked are potential microfinance clients.

Microfinance is not growing fast enough to meet the poor's demand for inclusiveness when it comes to financial services. MFIs, especially those at the frontier of the underserved, are struggling as they scale up and further deepen outreach. MFIs are hitting the limits of who they can sustainably reach and serve within the current microfinance model. Thus, current MFIs are competing for only the most creditworthy borrowers in predominantly urban and semi-urban areas. Also, the current lenders composed of international financial institutions, other multilateral organizations, and philanthropists, are not expanding past the current MFI set and scope. In particular, the rural micro-entrepreneurs and the rural poor continue to struggle to get access to basic financial services where they live and work.

A new direction is required for the microfinance industry to move from the current 150 million people served to the 1.5 billion target required of it. This new direction needs to focus not only on the global macro level, but more importantly on national and local MFI marketplaces, targeting to cover village by village, household by household in the underserved countries where poverty is greatest. It is time to overhaul the current microfinance blueprint by leveraging policy, regulatory, commercial, and technology innovations.

## The challenge for microfinance

The following questions beset the microfinance industry today and especially high on the agenda for key NGO stakeholders e.g., PlaNet Finance:

- How can we achieve a step-change expansion in the reach of microfinance for the world's urban and rural poor?
- How do we design the Next-Gen Microfinance infrastructure for demand-side distribution, service delivery scalability, and lowest cost-to-serve?
- How do we attract and make it easy for increased supply side innovation and product development that enable democratized and widespread coverage of the poor's financial services needs by innovative and relevant new products and services?
- How do we ensure that this next-gen ecosystem blueprint and its anticipated evolution are sustainable in the long term and continue to improve in effectiveness and efficiency?
- What is required to significantly accelerate the resolution of the above issues, and shorten time-to-market for the next generation of microfinance?

These questions have already shifted the focus from issues such as raising capital and ensuring a healthy pipeline of funds for the MFIs to disburse as loans. The industry is realizing the need to focus on the design and build-out of a next-gen microfinance ecosystem and infrastructure. This new buildout will need to support the targeted 10x increase in market scale and capacity, as well as be anchored on the right fundamentals and best practices to ensure sustainability through maximizing financial efficiency. The remainder of this paper develops a high level view of a recommended Next-Gen Microfinance blueprint and the path to achieving this quickly.

## Mobile money and its place in microfinance

Mobile money is defined as money that can be accessed and used via the mobile phone and using the mobile network. Mobile communication is the most inclusive and pervasive service in the world, with almost 2/3rds of the world's population currently mobile "subs" that use the cellphone daily to communicate. In most developing countries, average revenue per user is a measly USD 3-4 per month, predominantly from SMS, yet the mobile operators serving them are amongst the most profitable in the world generating EBITDA margins of 50-60% or more. Operators worldwide have invested hundreds of billions in building out their networks, and are able to boast 90+% geographic coverage and 99+% population coverage in nearly all countries. A total of 80% of the world's population are covered by at least 1 mobile network and have access to mobile communications services.

Mobile money-based services, riding on the success stories of Globe G-Cash and Smart Money in the Philippines, as well as M-PESA in Kenya, are now a priority for most mobile operators as well as banks and other financial institutions worldwide. Traditional financial institutions including banks, MFIs, and remittance companies, are now leveraging mobile money services as the last mile to expand their coverage and reach. The GSMA-organized Mobile Money Summit in Cairo, Egypt in May 2008 brought together almost 500 participants from 67 countries. They included operators, banks, solution providers, regulators, and NGOs. There was strong consensus on the potential for mobile money to revolutionize the delivery of financial services to the excluded poor.

Next-gen microfinance needs to fully leverage and ride the mobile money wave and use this as the primary user interface as well as the enabling last mile infrastructure. The rationale for this includes:

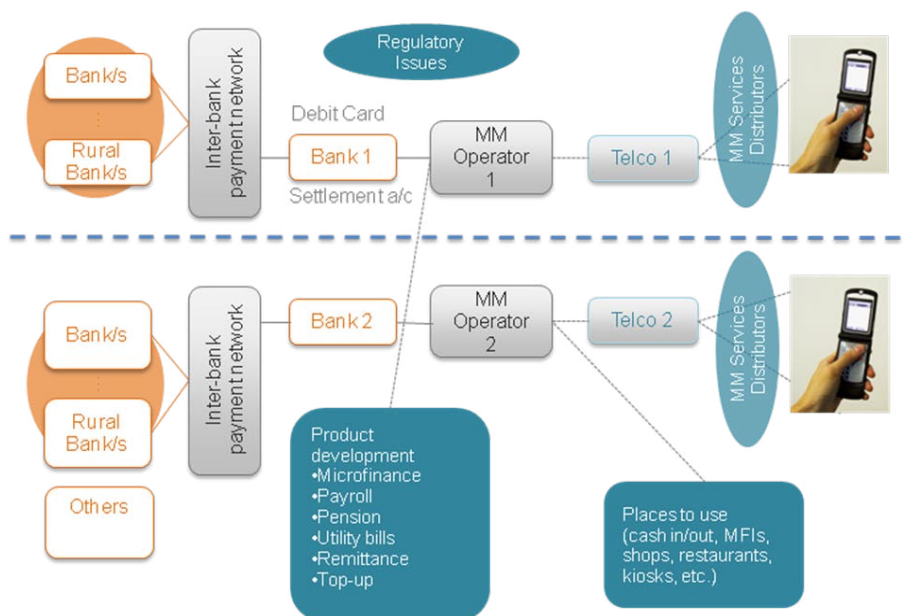
- Best in class in terms of geographic and population reach and coverage and lowest user-side transaction costs
- "Anyone can SMS" simplicity combined with IVRS options address potential literacy hurdles in the target market at the bottom of the pyramid
- Typically supported by the widest and most pervasive distribution/agent network, particularly prepaid top-up outlets typically located closest to customers and trusted handlers of cash. In the Philippines, for example, the top two mobile operators have an average of 1 million topup outlets/agents each vs. the equivalent bank distribution network of just over 10,000 ATMs
- Built-in capability and readiness for peer-to-peer mobile money transactions e.g., mobile payments, domestic remittances, cross-border remittances

## Resolving gaps in the ecosystem

The current ecosystem is highly complex as multiple players are needed and new partnerships are being rapidly developed to grow mobile money and microfinance. The current roster of players includes mobile operators, banks, agents, retailers, utilities, MFIs, employers, regulators, IFIs and donors, other multilateral organizations, governments, and, of course, end-users. It is becoming clear that core ecosystem players are moving solutions in one of two key directions, either of which drive long-term financial inefficiency:

1. “There can only be one.” Mobile telco-led models such as G-Cash and Smart Money in the Philippines, while providing significant reach are still not fully “inclusive” as they force the target poor and underserved to adopt a specific telco brand, and are then subsequently tied to the associated partner bank/FI/MFI. To be a long-term success, a targeted microfinance offering needs to interconnect across at least the 2 most dominant mobile money services/networks within a market. Parallel mobile money services should not be kept as “islands” but should be allowed to interconnect to maximize the ubiquity and addressable market.
2. “If it looks like a bank and smells like a bank...” The more successful bank-led models such as Wing, Wizzit, M-Pesa, aim to be telco-agnostic so that any mobile sub can sign up for the m-banking service. However, there is still no interoperability which limits the ability to make transactions to other banks. In more advanced markets, a sub with multiple accounts across multiple banks would have to load and use several applications on their phone to access all the accounts. Similarly, they may have difficulty making/sending payments to a creditor or supplier who banks with another bank. There are also issues with respect to product development. A customer is limited to the microfinance products offered by their bank, without access to the innovativeness that exists within the MF community at large.

### Mobile money evolving along inefficient silos today



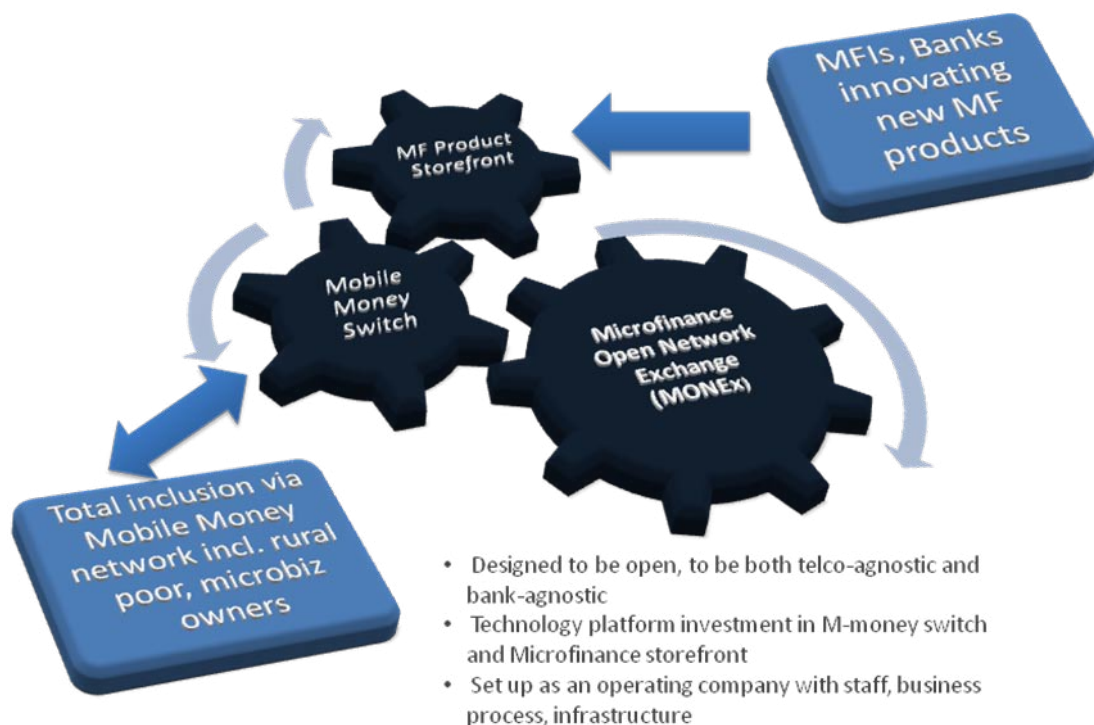
Source: IFC, EXICON analysis

## The need for a new player

Accelerating the expansion of microfinance will require the formation of a new player in the ecosystem, an operating company that can act as an open and neutral hub, and enable the emergence of “many-to-many” capabilities. Specifically, this new entity would be setup in each national-level market as a microfinance open network exchange, or “MONEx” for short. The MONEx’s core would center on 2 key technology platforms, namely a mobile money switch/exchange and a microfinance product storefront. There would also be supporting process and organization infrastructure to operate the core and ensure ecosystem traction. The new value-added roles of the MONEx include:

1. Acting as an interconnect switch for various operators’ mobile money services
2. Enabling customer transaction data collection and synthesis and making that available to credit rating agencies, MFIs and other FS product companies e.g., insurance, pensions
3. Delivering a central open storefront for multiple MFIs to offer an expanded set of financial services and products designed for the poor and micro-entrepreneurs
4. Proactively initiating and orchestrating ecosystem development specifically targeted at the unserved/underserved poor especially in rural areas,

### MONEx’s in the Next-Gen Microfinance Ecosystem



## Implementing a successful Microfinance Open Network Exchange

Significant effort and investment will be required to fully flesh out the MONEx blueprint and the resulting Next-Gen Ecosystem, and to define the migration scenarios to get there. While governments stand to gain the most from a MONEx initiative, they need a strategic partner to help them navigate through the issues and embrace the vision. An ideal partner that can sell and help realize this out-of-the-box model would be an international non-governmental organization (NGO) dedicated to alleviating poverty worldwide through microfinance. Such an NGO is uniquely positioned to sponsor and lead the development of the MONEx concept and blueprint, and the resulting Next-Gen Microfinance Ecosystem that the new MONEx model enables. It is also best suited to sell the concept to a short-list of countries and secure support for a trial implementation.

KEY NEXT STEPS	TARGET OUTCOMES
<ol style="list-style-type: none"> <li>1. Multi-sector team formed to develop the detailed MONEx blueprint and execution plan targeting a pilot deployment in a specific market e.g., the Philippines, Indonesia, Africa               <ol style="list-style-type: none"> <li>a. Key deliverables include a fleshed out ecosystem working around a MONEx company</li> <li>b. The blueprint, execution plan, and ecosystem view will need to have significant local market input including criteria for selecting the pilot area/s</li> </ol> </li> </ol>	<p>Detailed MONEx and Next-Gen Microfinance presentation completed, then cascaded in a roadshow to governments of short-listed countries</p>
<ol style="list-style-type: none"> <li>2. Consultation / roadshow to sell the vision and obtain buy-in in the selected pilot market for MONEx setup and launch               <ol style="list-style-type: none"> <li>a. Targeted country governments and influential NGOs and IFIs</li> <li>b. Local market players such as MNOs, banks, and MFIs</li> <li>c. Regulators</li> </ol> </li> </ol>	<p>Government decision to partner with NGO to do a MONEx pilot</p>

## Sun Microsystems and EXICON: Committed to Next-Gen Microfinance

Sun Microsystems and EXICON are uniquely positioned to offer the core knowledge, technology and business expertise required to drive the successful blueprinting and execution of the Microfinance Open Network Exchange (MONEx) model, thereby re-accelerating the delivery of microfinance and related basic financial services to the world's poor.

Sun Microsystems is committed to accelerating innovation in the microfinance space. Sun has deep experience in both the telco and financial services industries. Its technologies make up the foundation of today's telco networks and businesses. For example, Sun's JavaCard forms the basis for the SIM cards in cellphones, while JavaME and JavaFX are open standards that drive the dramatic and ubiquitous proliferation of mobile applications. In financial services, Sun is the premier payments infrastructure partner for financial institutions worldwide. Sun's commitment to open standards and interoperability supports wide and scalable ecosystems of technology providers that compete on a level playing field, without customer lock-in. Sun's wide adoption of open source software guarantees a very low barrier to entry for technology adoption, which is critical to microfinance and the MONEx model.

EXICON is an innovative strategy & execution consultancy specializing in mobile and internet that has worked with large corporations and start-ups globally since 2001. Clients include GSM Association, Standard Chartered Bank, Sony Ericsson, Sun Microsystems, Morgan Stanley, and Motorola. EXICON has significant experience in helping innovate, design, and launch mobile money services and businesses, including mobile-enabled remittance, payments, banking, and microfinance. In addition, EXICON has significant local expertise in emerging markets and rural ecosystems. Previous mobile money projects in emerging markets include market-specific business model design and launch, ecosystem design and development, solution and implementation strategy. EXICON employs a highly experienced team of recognized experts plus a unique Core+ approach that leverages an extensive network of specialists.

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