White Paper: Mobile Money Transfer

International Remittance Considerations for Mobile Network Operators

February 2013

Summary

Mobile network operators (MNOs) are becoming increasingly interested in offering international remittances, often as a new transaction type added to an existing mobile money service currently providing domestic transactions. This paper reviews the international remittance market, the opportunity for MNOs, and the technical, legal, commercial, and operational considerations for any new player to this market. The paper also introduces Mobile Money Transfer, an open business model developed by the GSMA to accelerate MNO market entry and participation in a meaningful and value adding role.

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Introduction

International remittance is a substantial and growing market worldwide. Global transaction value is expected to reach $615 billion by 2014, and around 75% of the remittance flow will be from high-income countries to emerging markets[1]. In addition to these official figures, unofficial remittances are estimated to be at least 50 per cent larger than recorded flows[2]. It is a business opportunity that many mobile network operators (MNOs) are keen to explore, particularly those with a live domestic mobile money service. Indeed some MNOs already have an active international remittance service, or are seeking to launch soon. In the MMU's global mobile money adoption survey, which gathered data from 78 different live mobile money deployments in 2012, over 20% of these mobile money services were already offering international remittances.

In this paper, we explore how will benefit after the word business of MNO participation in international remittance business for all participants in the ecosystem:

- Customers will benefit from the convenience of sending and receiving international remittances directly from/to their mobile handset.
- MNOs will derive direct revenues from international remittance transactions, as well as indirect benefits from reduced customer churn; they will also benefit from an uplift in revenue as recipients use these funds to perform other financial transactions from their mobile wallets.
- Financial services partners, such as money transfer operators (MTOs) which offer conventional money transfer services (usually through agents such as forex bureaux, banks and post offices), will benefit from an extended reach into the MNO's customer base, creating an uplift in transactions, and (for some) an opportunity to offer additional financial services.
- National financial regulators with imperatives to increase financial inclusion and legitimacy can leverage the reach and transparency of information and communications technology that is a characteristic of mobile[3] to turn a substantial proportion of a grey market legitimate.

A successful approach to mobile-enabled international remittance requires collaboration amongst these ecosystem participants. In addition, the international remittance sector is mature. By contrast, the mobile money sector is relatively new and there are no industry standards for best practice in technical delivery or service operation. The MTOs to which most mobile money services will connect to provide mobile international remittances have well established technologies, procedures, and business rules with which the mobile money services must interact.

This paper lays out the key considerations for any MNOs considering provision of an international remittance service.

Mobile Money Transfer (MMT), an open business model developed by the GSMA is a proposed industry solution that will accelerate MNO participation in international remittances in a value adding role that will benefit all stakeholders. It is assumed that the MNO will already operate a domestic mobile money service, so henceforth we can use the term mobile money operators (MMOs). By adopting this term, we can extend the definition to entities that do not operate a mobile network.

Benefits of International Remittances

MMOs providing international remittance services will derive a range of benefits;

Sending Market Benefits	Receiving Market Benefits
IR transaction fee, potentially including a share of any foreign exchange benefit	Potential share of the international remittance transaction fee and any foreign exchange benefit
Increased value in the **mobile money** bank account (although this may only be for a short period prior to overnight settlement following a customer remittance)	Injection of money into the mobile money bank account, increasing the interest income (where applicable) and making more e-money available with which customers can perform fee generating transactions, such as withdrawals
Increased utility of the mobile money service	Operational cost saving by getting funds into the customer account without the direct cost of agent deposit fees
	Increased utility of the mobile money service

The benefits to the customer of using their mobile money account for international remittances are similar to those for domestic remittances:

- Reduced cost of transacting: Market experience suggests that mobile money transactions tend to be competitively priced compared to the alternatives.
- Easy access to agent outlets: A large agent network, established for a domestic service, makes it much more convenient for senders to put cash into, or recipients to withdraw cash from, their mobile money accounts.
- Fast, simple transactions: It is relatively fast and easy to send or receive money via mobile.
- Secure transactions: mobile money services are safer than informal means of money transfer.
- Reduced reliance on cash with its associated risks[(4)].

Domestic mobile money services have become successful based upon combinations of these elements. They are no less appealing for international remittance transactions, particularly in emerging markets where the conventional payments infrastructure can be limited.

International Remittance Service Structure

There are three basic components in the provision of international remittance services:

1. Sending Agent

An organisation which takes funds from the "sending customer" in the country of origin and transfers them. Conventional international remittance services use an agent of an MTO and are typically forex bureaux, post offices, bank branches, and approved retail outlets. MMOs acting as sending agents for international remittances can do this by providing a menu item on their customers' handset.

2. Intermediation Service

An organisation which provides connectivity (switching) between sending and receiving organisations. Their service includes clearance and settlement between correspondent banks in both countries. In addition, they usually provide the foreign exchange (or forex) infrastructure. There are currently many MTOs providing this service. Some offer an end-to-end service with agents in both sending and receiving countries. Others provide a hub which connects independent agents in both countries. Some international banks also provide this service. Many MTOs specialise in specific remittance corridors.

Some MMOs may choose to provide the MTO function themselves to reduce costs, particularly when there is a close relationship between the agents in both countries, for example when two MNOs in the same corporate group wish to provide international remittances; however, they still need to source the forex (both rates and settlement) via conventional means.

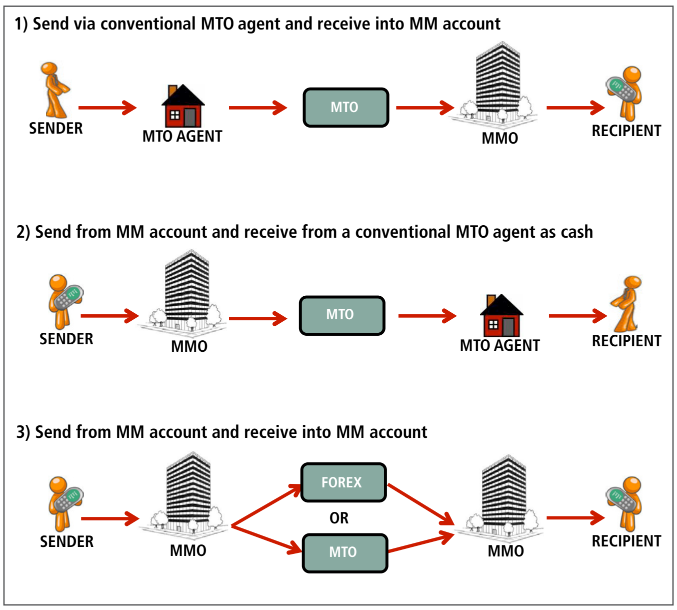
3. Receiving Agent

An organisation that receives the funds from an MTO and delivers them to the "receiving customer". Conventional international remittance services use the same agents for sending and receiving funds. MMOs acting as receiving agents for international remittances can do this by transferring the funds directly to a customers' mobile money account.

MMOs wishing to participate in international remittances can choose between several business structures. In most markets they must decide whether they wish to participate as MTOs for sending or for receiving remittances. In some markets, there may be sufficient traffic to support both sending and receiving funds, but this is not common[5]. It is probable that for the foreseeable future the correspondent leg of the transaction, whether sending or receiving, will mainly be provided by a conventional MTO agent, although as mobile money services develop worldwide, it is likely that there will be increasing numbers of transactions between MMOs acting as MTO agents.

The MMO must decide whether to partner with one or more MTOs or to provide the service in-house, although an in-house service will still access forex services via a specialist third party, usually a bank. These decisions will determine the operational structure, as illustrated in Figure 1.

Figure 1: Organisations Involved in the International Remittances Service



The types of operational structure fall into the following three groups:

1) Send via MTO agent and receive into mobile money account: The sender uses a conventional international remittance service to put funds in. The recipient receives these funds into his mobile money account.

> For example, a sender in Saudi Arabia may use Western Union to send money directly to a Filipino recipient G-CASH or Smart Money account.

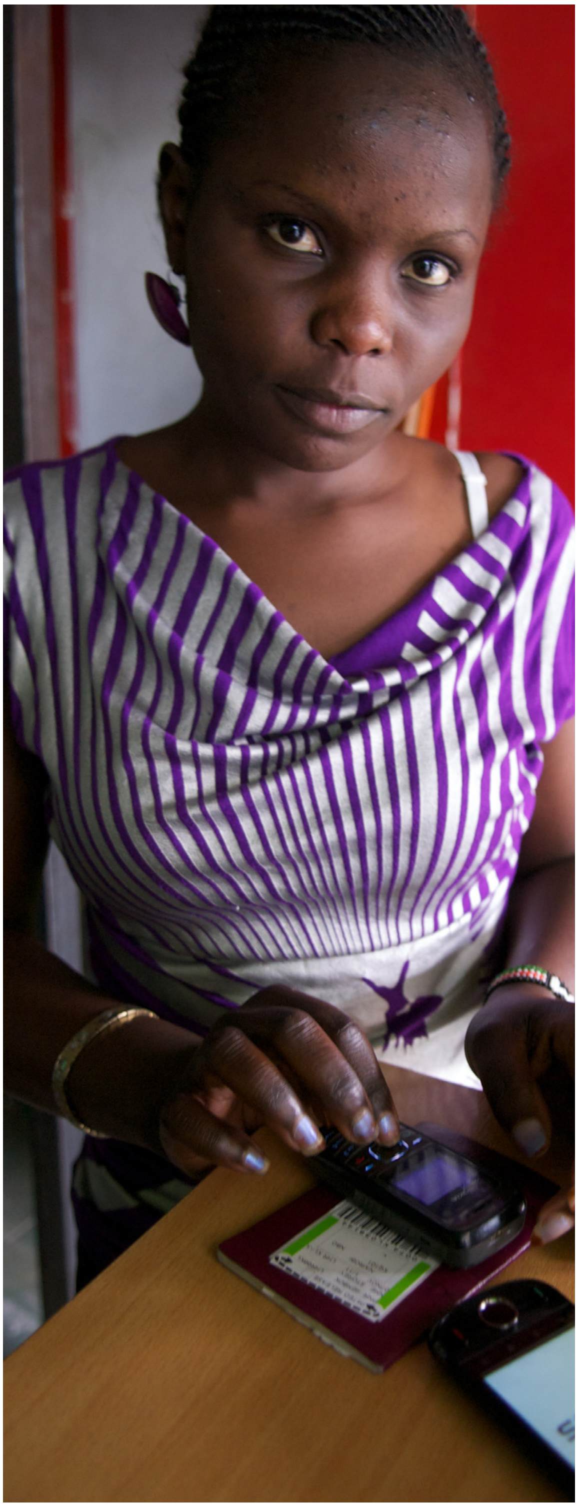
2) Send from mobile money account and receive via a conventional international remittance service: The sender uses his account to send funds. Banked recipients have the money delivered to their bank account; unbanked recipients are instructed to collect cash at an MTO agent.

> For example, a sender in Malaysia may use his Celcom Aircash account to send money to a recipient in Indonesia who collects his cash at the local post office.

3) Send from mobile money account and receive into mobile money account: The sender uses his sending country mobile money service to send funds to a recipient. The recipient receives these funds directly into his local mobile money account.

> For example a sender in Japan can transfer e-money from his NTT DoCoMo account to a recipient Smart Money account in the Philippines.

It is often a legal requirement that the funds moved between two countries by any international remittance service are accompanied by a "real" movement of currency between the two participating markets as settlement within a reasonable timeframe. It is normally the responsibility of the MTO to ensure that reconciliation and settlement between all parties takes place. The MTO also administers periodic settlement of any outstanding fees or commission between parties.



Key Regulatory Considerations

Whilst there are no international laws that regulate international remittance services, all countries are subject to international standards agreed between governments and to international regulatory principles which they are expected to reflect in their domestic legislation. The most important set of standards are the Financial Action Task Force (FATF) recommendations[6].

In addition, the Committee for Payments and Settlements (CPSS) and the World Bank (WB) have set out some general principles for international remittances which incorporate regulatory recommendations. Since the CPSS works under the auspices of the Bank for International Settlements (BIS) these are known as the WB-BIS Principles[7].

An MMO seeking to provide international remittances must investigate the domestic regulatory environment. Much of the regulation developed in recent years applies to domestic mobile money services as well as to international remittances and so should be familiar[8]. Most of the FATF recommendations apply to governments and legislators, but some of them apply directly to MTOs and thus by association to the participating MMOs. The main regulations, which are in addition to any specific domestic controls, can be summarised as follows:

- MMOs must establish procedures to ensure they know their customers. For international remittances this implies a requirement that the MMO confirms that its service partners also comply. Know your customer (KYC) procedures vary widely between countries.
- The due diligence required for domestic mobile money services also applies, including transaction monitoring, customer checks against watch-lists and screening for politically exposed persons. Appropriate actions must be taken as required.
- MMOs must carry out due diligence on all of their international remittance partners, including MTOs and other intermediary service providers. This must include:
  - Assessing the reputation of the institution and the quality of its supervision.
  - Assessing its anti-money laundering (AML) and combating the financing of terrorism (CFT) controls.
  - Obtaining approval from senior management.
  - Understanding each party's responsibilities.
- The MMO will be subject to similar due diligence checks by their international remittance partners, and must have procedures in place to support this.
- The MMO is required to be licensed by, or registered with, the domestic regulatory authorities.
- Any agent for the MMO must be licensed or registered, and the MMO must maintain an accurate list of agents.
- It is probable that the domestic financial regulator will require that the MMO be subject to an AML/CFT-specific risk assessment, and as a result of any findings require additional measures to manage and mitigate those risks.
- MMOs in higher-risk countries, or who are engaged in international remittances with higher-risk countries, must carry out enhanced due diligence checks for both registrations and transactions. Additional countermeasures may be required as advised by their national financial regulator.

MMOs should review all recommendations relating to international remittances with their national financial regulator to ensure that they meet their obligations prior to launch.

Foreign Exchange Considerations

Foreign exchange, or forex, is the process by which money in one currency is exchanged for a similar value in another, according to a published exchange rate. Forex traders buy and sell a currency at different rates, and the difference between the rates is the "spread". Financial institutions including banks and MTOs will seek to profit from exchanging currencies by exploiting the spread and also by charging commission. The buy and sell prices, and therefore the spread, are not fixed by any central authority, but are a reflection of the transaction value. Forex traders who deal in millions of dollars every day will benefit from a small spread, whilst retail customers will pay a much larger spread. The exchange rate of the service for the customer can be improved, and thus its competitiveness enhanced, by agreeing a small spread with the forex provider.

The MMO may be able to negotiate a share of the revenue arising from the spread with their forex provider, unless local regulation prevents this. Other forms of revenue depend upon whether they are acting as sending or receiving MTO agents.

International Remittances Service Design

The MMO has a number of decisions to make about the user experience and how their international remittance service should operate.

MTO or Direct Connection

The service design depends upon the type of international remittance service required. If the MMO needs a single or very limited number of connections, it may be appropriate to consider a direct relationship between sending and receiving agents, with forex managed for example by an international bank. However, it will normally be the case that one or more MTOs will be engaged, in order to achieve scale across multiple partners in many markets. The MTOs will have a set of technical and operational requirements for integration to the mobile money service, although these may need some modification depending upon the service design.

Enhanced Customer Due Diligence

Customer due diligence (CDD) and KYC procedures vary widely between countries, and may be "tiered" if domestic regulations allow, so that a customer's registration tier is determined by the quantity and quality of KYC data gathered. A customer's transaction and account balance limits are then governed by their registration tier. In some markets all international remittance customers are required to have higher tier registrations – that is, higher quality KYC data must be gathered. International remittances transaction values are significantly higher than domestic remittances, so for both sending and receiving markets it may be necessary for the MMO to gain additional KYC information about their customers and increase their registration tier so that their accounts are able to receive the required funds.

Unregistered Recipients

It is common in many markets for some recipients of domestic remittances to be "unregistered"; that is, they do not have a mobile money account, and simply receive a Short Message Service (SMS) or "text" voucher which they can use to cash out at an agent. Although the FATF recommendations appear to prohibit unregistered customers from receiving international remittances, it is sometimes permissible if the recipient presents suitable identification data at the time of withdrawal. If a sender attempts to send funds to an unregistered customer, there are a number of options that can be designed into the service, including declining the transaction. A more satisfactory response is for the mobile money service to advise the customer that he has been sent money and that, if he registers, the funds will be automatically transferred to his mobile money account. As some recipients are unable to register for a range of reasons, it is also necessary to provide the option that he can collect his money by conventional means at an MTO agent.

Exchange Rate and Quotation

For any foreign currency exchange, the sender must be made aware of the exchange rate used to convert from a specified amount in his home currency to the net amount that will be provided in the destination currency. Therefore the first part of any transaction must be to provide this quotation by an appropriate mechanism. This may be a manual process, such as requesting the information from a call centre; the information could be provided on line for customers with suitable access; or the MMO may provide a handset application that the customer can use to request the information (for example by SMS) before starting the transaction. Alternatively, it may be given as the first part of the transaction, providing that it can be cancelled before completion if the customer dislikes the quotation.

Sending International Remittances

After the quotation the sender can choose to proceed with the transaction using his mobile money menu. International remittances transactions tend to require more information about the recipient than just the mobile number (MSISDN) used for domestic transactions. Depending upon local regulation, the sender will usually need to provide a name, and in many case an address and/or other personal information. Entering this level of detailed text on a simple handset can be inconvenient and prone to error. Further, depending upon the Mobile Money (MM) channel used, this can present technical problems – for example, senders, particularly the less literate, may experience "time out" whilst entering the additional data; and many USSD services do not currently support text, only numbers.

Ideally the sender should be able to register the recipient details in advance, by means of some process that is outside the transaction itself, and during a transaction simply choose the correct recipient from their registered list of recipients. This registration process may be performed by a customer care representative or MM agent, or by the customer on line or using a handset application.

Receiving International Remittances

Registered mobile money recipients should receive an SMS or some other notification of the in-bound remittance confirming the transaction details including country of origin. The funds should enter their account and immediately be available for use. Unregistered recipients may need to register before they can receive their funds, or visit an MTO agent for cash.

Real Time Transactions

Mobile money customers expect transactions to happen in real time. This can be achieved simply in a closed loop, domestic mobile money system where all the money is in one bank (control) account, but for international remittances the "real" money does not reach the receiving MMO bank account until after overnight clearance and settlement. In a typical model, the sending MMO would remove the funds from the sender's account in real time, and would be expected to transfer them to a separate mobile money "IR receipt account". These funds are aggregated for transfer each night, when the money in the bank is transferred to the MTO / correspondent bank account.

The receiving MMO can simply design their service such that there is a delay in the recipient getting access to their money, though this may not meet customer expectations, since the funds transfer may take several days. A common alternative is for the receiving MMO to pre-fund an "IR funding account" within their mobile money service, from which the recipient is paid in real time, with the e-money in this account being regularly replenished as the settlement funds reach their bank account.

Whilst there is some cost associated with pre-funding, the commercial risks are low and can be managed using established banking practices, as correspondent bank transfers are well established and regulated.

Reporting Requirements

As well as the standard reports needed to run the IR business, local regulation may require an additional number of IR-specific reports, such as reconciliation between the MM IR service, the MTO, and the inter-bank settlement amount. Separately, IR transactions must be monitored for suspicious activity, and anything anomalous reported to the proper domestic authorities.

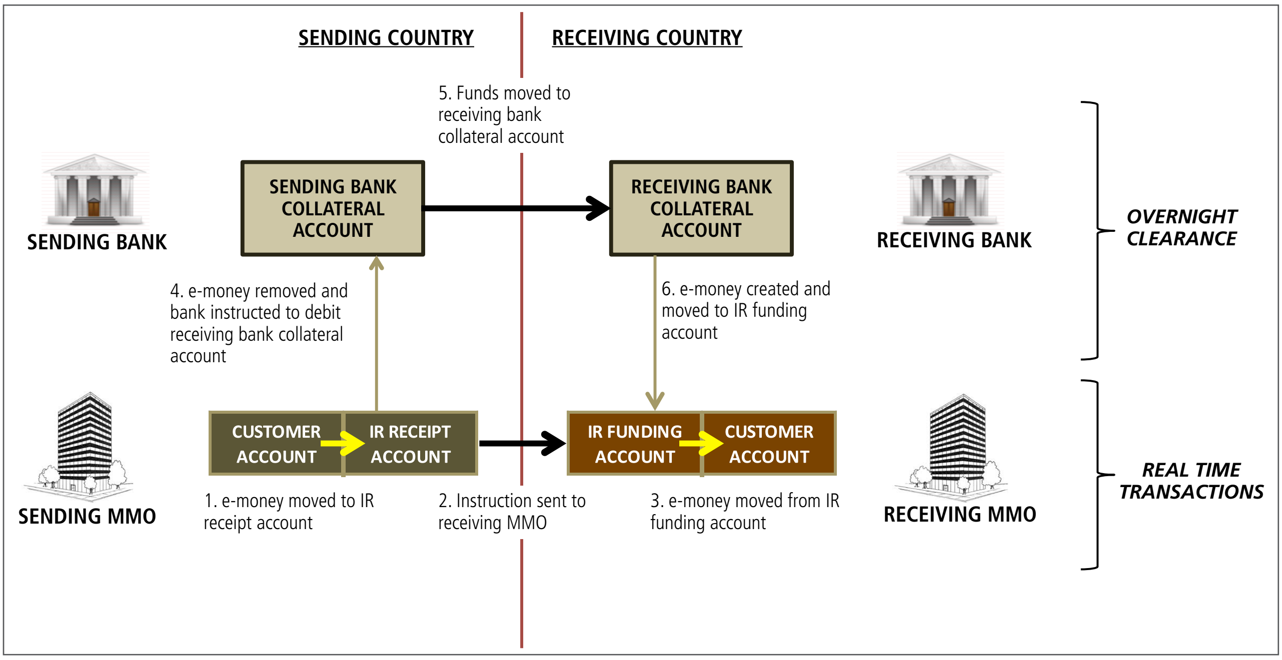
Business Processes

IR business processes will be in addition to any existing domestic MM service procedures. Some new IR processes will be required, such as reconciliation and settlement between the MMO and MTO; reconciliation between the IR transactions in the MM service and the funds moved to or from the MM bank account; revenue share procedure; and administering changes to forex rates.

Service Evolution

As the international remittance service will undoubtedly evolve over time, it needs to be future-proof as far as possible for the addition of new markets, MTOs, use cases, and even new services such as overseas bill payment and vouchering. As the smart phones adoption grows, the user experience can be improved, particularly for senders who may have difficulties with a text based interfaces.

Figure 2: Transaction Between Accounts During a Mobile-to-Mobile International Remittance Transaction



Impact on Mobile Money Agents

Mobile money agents are not directly involved with or affected by international remittance transactions, but there are some indirect implications for them. The most important is liquidity. International remittances transactions tend to be substantially higher in value than domestic transfers. Consequently, international remittance customers place a far greater burden on the agent cash flow: in sending markets the agents need more e-money to service the sender's deposits, whilst in receiving markets the agents need extra cash for recipients to withdraw. As the service grows, the liquidity of the agents must be monitored and carefully managed. The principles of agent management are much the same as those required for a domestic service(8).

Another potential impact may be the need to enhance the KYC information about an international remittance customer. If tiered registration is new to the market, mobile money agents performing this service will need to be trained and processes created for collecting and forwarding customer documentation.

It may be decided in some sending markets that the agent should perform the transaction on behalf of the customer. This may be due to practical limitations in senders entering the required information on their handset, due to either technical or literacy constraints. In this case, the international remittance sending service and business case would need to be redesigned.

Customer Marketing Considerations

The task of marketing international remittances to customers is complicated by the need to inform and educate in both the sending and receiving markets. It is normally the senders who choose the remittance service, as they both initiate and pay for the transactions, though this may not be the best route for recipients. For MMOs in sending markets, the customer needs to be made aware of the service, how to access it and how to use it. They also need reassurance that the recipient will be able to gain access to their funds, so it will probably be necessary to provide communication and education in the receiving markets. Typically the diaspora of senders is a subset of the total customer base, and may not be fluent in the local language. If the MMO is in a receiving market, the task becomes more challenging, as they need to communicate their service to senders in a country in which they may have no business presence. Further, as mobile money is a relatively new business sector, the sender overseas may be unaware of the recipient service.

Many MMOs rely on the MTO to market the service in the "other" market, although with largely limited success to date. There are other ways that the marketing challenges can be tackled:

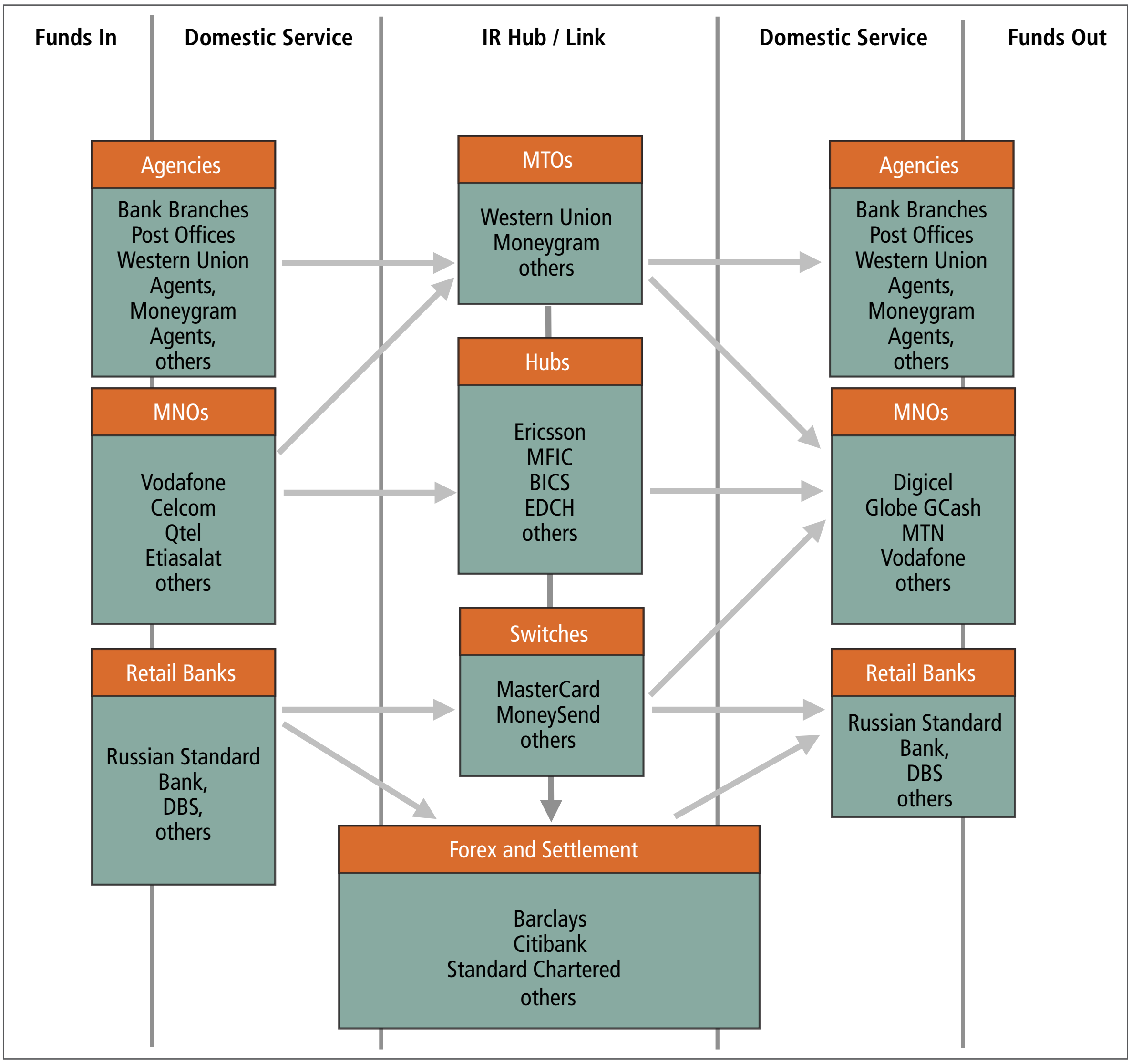
- In sending markets, the geographical distribution of a diaspora is likely to be different from the general population distribution. Market research could include call record analysis to identify pockets of potential senders for regional marketing initiatives. By targeting communities by their country of origin, advertising may be delivered in their native tongue. Many migrant workers in some markets are unbanked, so the benefits to them of using the mobile money service to send money home is greater.
- In receiving markets, the target customers are more likely to be distributed across the country. Using permission based marketing methods, call records may identify customers more likely to be recipients of IR, and they can be targeted for awareness and education about the IR service, and to influence their senders to send directly to their MM account. Incentives for the recipients whose senders use the service might include, for example, free airtime, and free calls to the sending country.

Selecting International Remittance Partners

Partners may be MTOs, MMOs in other markets, and other financial organisations such as banks. Choosing suitable partners for an international remittance service depends upon the objectives of the service, for example: whether the main opportunity is to send or receive; which are the priority markets; and which MTO agents within each market will provide the required reach. The range of potential partners and the complexity of the relationships can be illustrated in a stakeholder map, such as that presented in Figure 3.

If an MMO perceives significant and immediate opportunity in multiple markets, it is likely that partnering with an MTO is the best solution unless the MMO belongs to a group with a presence in each of these markets. If they have this presence or if requirement is more limited, for example connecting two MM services owned by the same group in different countries, an in-house solution may be developed using a hub. However, in most cases it is expected that an MTO will be used for forex, connectivity, and financial settlement.

Figure 3: Stakeholder Map



A Common Approach to International Remittances

This paper describes a complex and well-established international remittance market into which many MNOs are considering entry. Few MNOs are currently active in this space and many that are planning to launch services have limited experience in the range of specialist capabilities required. To assist MNOs to launch mobile enabled services, the GSMA has developed "Mobile Money Transfer" (MMT) an open business model which includes:

- MMT Toolkit: a collection of resources to assist MNOs in strategic decision making and practical implementation of new services.
- MMT Specifications - procedures and technical interface specifications to enable MNOs and international remittance partners to connect in an efficient manner. MMT Specifications is supported by GSMA Working Groups to ensure that this industry solution is evolves in line with market requirements.

For more information about these resources or about participation in international remittances business in general, please contact: **mmt@gsma.com.**

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