Transformative Technology

- How many mobile telephone subscribers are there worldwide?
  6 billion – Fastest product adoption ever

- Why?
  - Handsets are affordable
  - Ideal set of features and functions
  - Carlos Slim and the pre-paid airtime scratch card
What is mobile money? – Simple Version

Airtime Platform
Mobile Money Platform

AGENT

+ -
Airtime
$

AGENT

+ -
m-$

M$100

Bank

$100
What is mobile money? – More complex version

**Definition**

- Prepaid electronic value transfer using predominantly mobile network operator services
- Making use of mobile phone technology to provide access to existing financial services at a banking institution or to provide a means of making cash value transfers via a mobile wallet account where bank-based services don’t exist
- The mobile phone network acts as a secure channel for moving the electronic funds between mobile wallet accounts
- Designated agents are used for exchanging cash into electronic funds, or electronic funds into cash for end-users of the system
- Architecture is based on electronic airtime distribution model using agents
- Service Provider is typically responsible for Know Your Customer (KYC) policy
The gap between those with bank accounts and those with mobile phones continues to grow

**Mobile Telephone versus Bank Penetration in Vanuatu**

- Reduced financial services transaction costs
- Convenient and understood channel for unbanked and under banked populations (low-end handsets are sufficient)
- Provides reach into rural areas where bank branches and ATMs are cost prohibitive
- Offers consumers time savings, security, and transparency
- Growing interest in use of mobile network for social welfare, salary and bill payments as well as facilitating savings & credit capabilities

Source: Financial Inclusion Report 2011, Digicel, TVL
Mobile Money deployments continue to expand around the world under a range of business models and regulatory regimes.

Source: GSMA Mobile Money Deployment Tracker
http://www.wirelessintelligence.com/mobile-money/unbanked/
These deployments are beginning to have development impact

Ground-breaking mobile money programs have enabled people from Kenya to the Philippines to access financial services for the first time.

"The concept works. Now it's time to take it out of the lab and into the mainstream. There is tremendous potential for innovative delivery channels to reach the 2.7 billion people who have no access to affordable financial services."

*Tilman Ehrbeck, CGAP's Chief Executive Officer*
In markets where mobile money has reached scale significant economic and social benefits have been achieved

- In East Africa, using mobile money on average saves 3 hours per transaction as well as significant transportation costs
- In Kenya 20% of GDP flows through a mobile money system
- In the Philippines Rural banks registered over 160,000 new clients who conducted over PhP 8 Billion ($200 million) in mobile phone banking transactions via GCASH
- In the Republic of Georgia, each month individuals pay four separate utility bills in minutes rather than hours

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage e-wallets to Total Cellular Subscribers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>65</td>
</tr>
<tr>
<td>Philippines</td>
<td>11</td>
</tr>
<tr>
<td>Tanzania</td>
<td>19</td>
</tr>
<tr>
<td>Thailand</td>
<td>7</td>
</tr>
<tr>
<td>Uganda</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: GSMA MMU Tracker
In addition to standard commercial services Mobile Money supports a range of development applications.

**Typical Platform Capabilities**

- A range of products are enabled through the platform:
  - Cash out
  - Microloan payments
  - Bill payment
  - Merchant purchase
  - Peer-to-Peer mobile money transfer
  - Remittances

- Special use cases that can be enabled:
  - Ag value chain payments
  - Conditional Cash Transfers
  - Salary payments
  - Loan disbursements
  - Humanitarian aid (mobile vouchers)
  - Health vouchers at point of care
  - Agricultural input vouchers

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**Agriculture**

**Health**

**Financial Literacy**

**Education**

OpenRevolution

financial mobility

STRATEGIC IMPACT ADVISORS
Role of the agent – The last mile

Promotion and Education
- Localized advertising, typically through signage and on-premise materials
- Product education and demonstration

Registration
- Technical capabilities to register new customers (e.g., terminal, handset applications, forms)
- Know your customer and other regulatory compliance

Transactions
- Transaction assistance for full range of use cases
- Cash in transactions
- Cast out transactions
Types of Agent Networks

**Proprietary**
- Typically owned or franchised by the MNO or financial institution
- Represents a single mobile money service and product
- Often is provided technical and financial assistance by the MNO or financial institution
- Agent can be involved in the sale of other non-mobile money products and services

**Non-Exclusive**
- Could be independently owned or part of a third-party network
- Can offer multiple mobile money products and services
- Often sell other non-mobile money products and services
Agent Issues

**Liquidity**
- Do I have enough cash on hand to meet customer cash out needs?
- Do I have the necessary resources to procure and maintain adequate e-money inventory?

**Incentives**
- Are agent incentives and MNO/financial institution incentives align? (e.g., desired transaction types profitable for both agent and entity)
- Are commission payments timely and sufficient given the complexity and risk of mobile money operations?
Central Bank of Solomon Islands (CBSI) Governor Denton Rarawa recently highlighted five regulatory imperatives:

- The importance of an “Open Door Policy” that allows for a continuous close dialogue with the private sector in developing policies and regulations;
- Implementing a “Test and Learn” or “Test and Follow” approach to new innovative financial services;
- Instituting simplified tiered KYC regulations;
- Promoting and supporting financial education and client awareness initiatives;
- Collaborating and sharing with other regulators in similar environments.
Small island economies

What is unique?

- In general populations are small, rural, and isolated
- Infrastructure costs are high (equipment, power, transport)
- Mobile networks are among the most advanced and ubiquitous infrastructure

What is needed?

- Maximize the use of telecommunications infrastructure
  - Share facilities
  - Partner
  - Layer services (mobile money)
... conducting peer training
... doing e-commerce
... organizing her team to receive m-payments
...cashing out