

The M-Pesa Payment Platform

FDCF project (DFID)

An Introduction

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The Market Need

Customers

Access to basic financial services – inc credit
Secure and convenient means of 'cash in' and 'cash out'
Receipt of payments
Purchase of goods/services
Person-to-person transfer of money

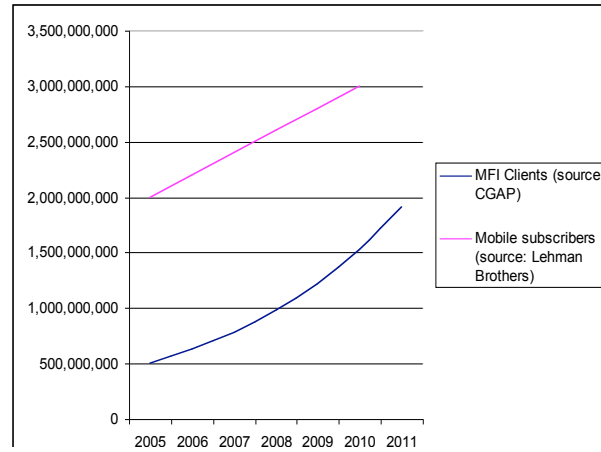
Banks / MicroFinance

Deepen provision of financial services
Greater reach – new customers
Grow business – new services
Lower internal costs of transactions
Overcome lack of physical infrastructure

Network Operator

Added value services
Enable service delivery on B2B basis
Utilise deployed infrastructure
Revenue generation
Customer acquisition - differentiate

Growth in Markets



3

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M-Pesa - Functionality

- Payment platform, SMS enabled
- Allows customers to receive loan disbursements, put cash in, transfer money, pay loan instalments
- Allows P2P value transfer, P2B transfer and B2B
- Simple user interface - application on handset, PIN protected
- Sophisticated back office, management system with full reporting functionality
- Low cost means of facilitating the distribution of encashment and deposit taking – can use airtime re-sellers as the distribution network
- The SIM is the ATM card and the airtime agents are the ATMs
- End to end security – flexible business rules (tnx charges etc)

4

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Mobile MicroFinance Delivery

Customer Needs	Customer Benefits	Features
<ul style="list-style-type: none"> - At global level, financial services are core to economic stimulation in BOP (by enabling business activities) - Access to range of financial services (loans, savings, money transfer, assurance) - Ubiquity (as cash) - Don't want to hold cash - security - Reliability – trust - Convenience - Lower costs for service provision 	<ul style="list-style-type: none"> - Phone based application can deliver basic banking services - Lower transaction costs - SIM is the ATM card - Use diverse distribution networks to load and unload (eg airtime re-sellers as the ATMs) providing extensive networks - Removes need for cash - Facilitates 'remittances' - Secure – end to end - Visible to regulators 	<ul style="list-style-type: none"> - Simple user interface – SMS based commands, proven to work in these markets - Rapid secure transactions - Money transfer P2P or P2B - PIN encrypted - Txn authenticated - Back office system for banks / MFIs to track money distribution, meet customer care obligations - Flexible business rules - Transparent, and data-rich

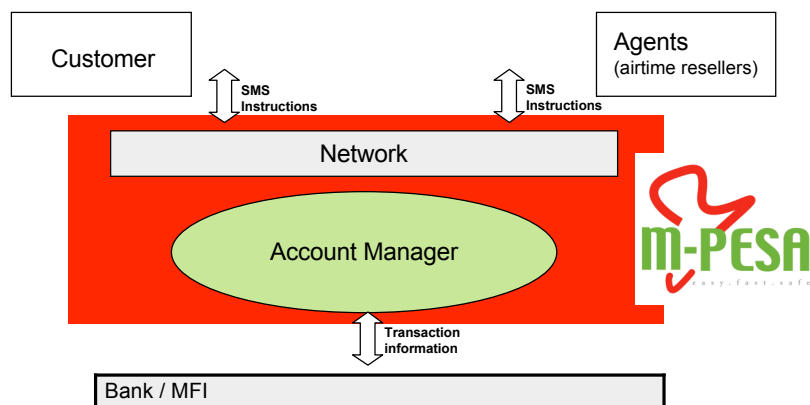
5

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How M-Pesa Works



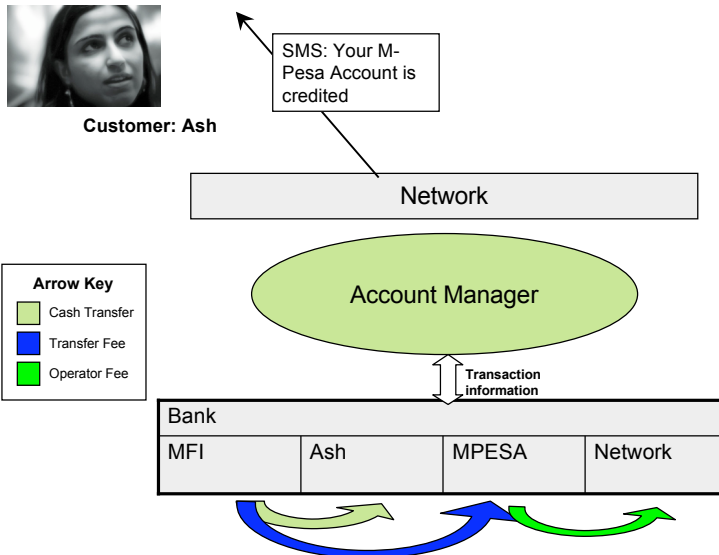
6

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Example – Loan Set Up



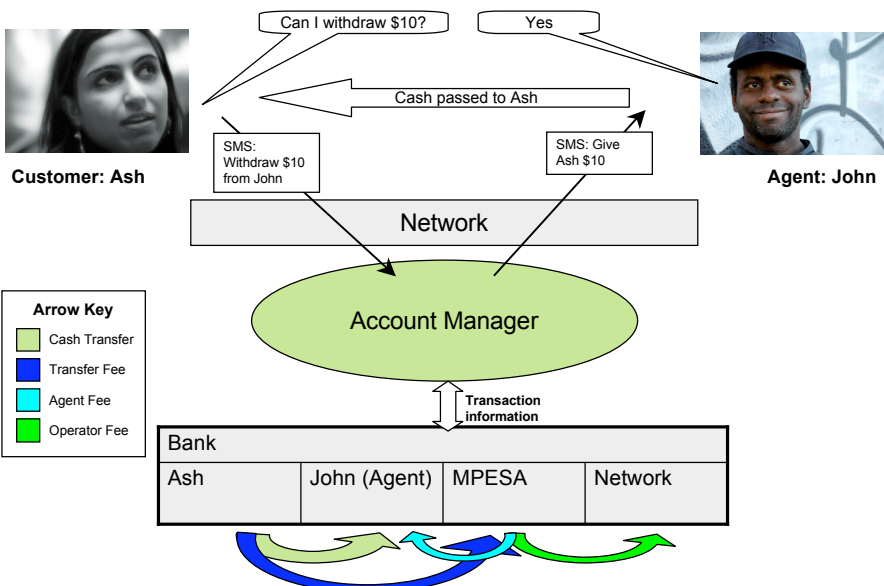
7

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Cash Withdraw Example



8

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M-Pesa - Current Status

- System technical trials completed – UK and Kenya
- System deployed with commercial bank (CBA) and micro-finance partner in Nairobi
- Customer base for market trial capped at 1000 users – live transactions being completed
- Market research confirms customers want speed / convenience, security and lower costs of money transfer
- Pricing models being tested
- Airtime purchase capability being added to facilitate reseller distributions
- System is built to allow scale-up and transferability
 - E.g. charging structure, business rules such as capping, reporting

9

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M-Pesa – User Experience for Cash Withdrawal



1. Select "Withdraw cash"



2. Select "Withdraw"



3. Enter the phone number you want to withdraw cash from



4. Enter the amount you want to withdraw



5. Enter your secret PIN



6. Check the details are correct then press OK to send an SMS to M-PESA

10

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Reviewing Transactions

Mobile Micro Finance Administration - Microsoft Internet Explorer

Address: http://194.216.39.73/m-pesa/account-statement.aspx?AccountID=82

Home Create Account Make Payments Reports

Customer: Barry Boot (254724099034) Activity Log Manage

Not M-PESA Customer - Statement For MMF Account

Select Start Date: 10 July 2005
 Select End Date: 10 August 2005

Select transaction type: Completed Pending Failed

Select Page Size: 10 Go

Current Balance: 11025.00/-
 Uncleared Funds: 0.00/-
 Reserved Funds: 0.00/-
 Available Funds: 11025.00/-

Account Number: 190-1
 Account Status: Active

Receipt	Date	Details	Transaction Status	Withdrawn	Paid In
AA604	10-08-05 10:44	Transfer of funds to unregistered user (254724923001)	Completed	-800.00	
AA604	10-08-05 10:44	Send Money Charge	Completed	-40.00	
AA596	09-08-05 16:18	Funds received from Clarence Client (254724099055)	Completed		2740.00
AA587	09-08-05 11:30	Transfer of funds to unregistered user (447913567873)	Completed	-745.00	
AA587	09-08-05 11:30	Send Money Charge	Completed	-40.00	
AA578	09-08-05 10:04	Transfer of funds to unregistered user (254722540879)	Completed	-999.00	
AA578	09-08-05 10:04	Send Money Charge	Completed	-40.00	
AA544	08-08-05 15:39	Transfer of funds to Clive Client (254724099054)	Completed	-520.00	
AA544	08-08-05 15:39	Transfer Charge	Completed	-20.00	
AA534	08-08-05 10:54	Deposit through Agent Angie Agent (254724099038)	Completed		666.00

11

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Transactions to date [22nd Nov – 6 weeks]

	total	Latest 7 days	Avg txn
No of registered clients	316	316	-
No of Agent outlets	8	8	-
No of transactions	6126	1336	-
Value of all transactions	Ksh 7.5m	Ksh 1.7m	Ksh 1,224
Deposit cash – no of txns	708	187	-
Deposit cash – value of txns	Ksh 1,320k	Ksh 422k	Ksh 1,864
Withdraw cash – no of txns	309	78	-
Withdraw cash – value of txns	Ksh 106k	Ksh 27k	Ksh 343
P2P money transfers – no of txns	493	96	-
P2P money transfers – value of txns	Ksh 124k	Ksh 21k	Ksh 252
Pay MFI [group] – no of txns	515	145	-
Pay MFI [group] – value of txns	Ksh 1,233k	Ksh 413k	Ksh 2,394
Payments to Faulu – no of txns	57	14	-
Payments to Faulu – value of txns	Ksh 1,216k	Ksh 409k	Ksh 21,333

12

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