

Authenticated Mobile Transactions

Using your bank card on the phone is the next big thing....



MTN MobileMoney is a 50:50 joint venture between MTN and Standard Bank – both dominant players in Africa and emerging markets

MobileMoney

Simply the best way to pay, or be paid, securely, by phone



- Largest bank in Africa
- Operates in 42 countries worldwide
 - 18 in Africa
- Significant MasterCard/Visa card issuer and acquirer



- Largest Mobile Network Operator in Africa
- 21 countries in Africa and Middle East
- 152m subscribers
- Sponsor of 2010 Soccer World Cup

In 5 years MTN MobileMoney has produced a number of world leading operational solutions for its shareholders

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- High profile launch in August 2005
- Achieved over 300 000 accounts

MTN
MobileMoney
2005

MTN Africa 2008

- Developed system and processes for rollout
- Over 15 countries expected to be live by end of 2010
- MTN Opco's implementing



- Bespoke version of MM for rollout in low income communities
- Can open full bank account with KYC in under 10 minutes - remotely
- Aggressive rollout planned

Standard Bank
Community
Banking 2008

MTN Eazi
Recharge 2009

- mDirect Mobile payments switching system
- MTN Eazi Recharge test launched in mid 2009
- Airtime on handset from bank cards



Send money home safely with MTN MobileMoney.

Go send money now now.

Now you can use your Visa credit card to buy airtime when you need it, wherever you are, with MTN Eazi Recharge.

Register today and get 25% free MTN airtime on your first recharge.

Register today and get 25% free MTN airtime on your first recharge. MTN Eazi Recharge lets you use your Visa credit card to buy MTN airtime directly from your cellphone for your friends and family so you can recharge easily. MTN Eazi Recharge is available in South Africa, Kenya, Nigeria, Tanzania, Uganda, and Zambia. This service is available on a limited basis. * Excludes certain recharge methods. See your local MTN Eazi Recharge agent for more details.

Our first product ... MTN MobileMoney was a transactional bank account targeted at the unbanked in South Africa

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4 Lessons learnt in South Africa

- **Airtime purchases** are still the “killer app” on the phone
- Networks **do not control their distribution agents** and therefore struggle to execute outside of network products – banking requires specialist sales and support eg KYC
- **Payments more likely to succeed** but are hindered by too many different and non interoperable systems in play
- **The money is less in transactions and more in credit**



In Africa this led to the focus on using
airtime to build a base for money transfer...

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**Send money home safely
with MTN MobileMoney.**

You can now send and receive cash on your mobile phone with MTN MobileMoney. It's the easiest and most affordable way to send money home from mobile phone to family.

To register visit any one of our MTN MobileMoney agents countrywide with an original and copy of your identification documents. Sign up now and get a free sim card.

Go send money now now.



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Approach outside of South Africa

- Focus on airtime agents and make the account opening process easy for them
- Expand to payments – especially money transfer – then add more services such as insurance
- 15 countries live



and to Standard Bank putting agents on the ground to open and service bank accounts in under banked areas of South Africa...

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- Focus is on creating a remote or MOBILE banking force
- Able to open full KYC bank transaction account in townships and rural areas – using phone – no paper
- Time to open an account, link a MasterCard debit card and take a first deposit – under 10 minutes
- Mobile bankers rather than Mobile Money – high usage as a result
- New Inclusive Banking area created to roll out nationally

 Standard Bank

MNO's want to reduce the cost of airtime and reduce churn...

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In emerging markets prepaid airtime accounts for >95% of mobile subscribers; yet the cost of distribution is high due to agent dependence. Selling airtime directly to customers would reduce airtime distribution costs and could be worth billions to MNO's

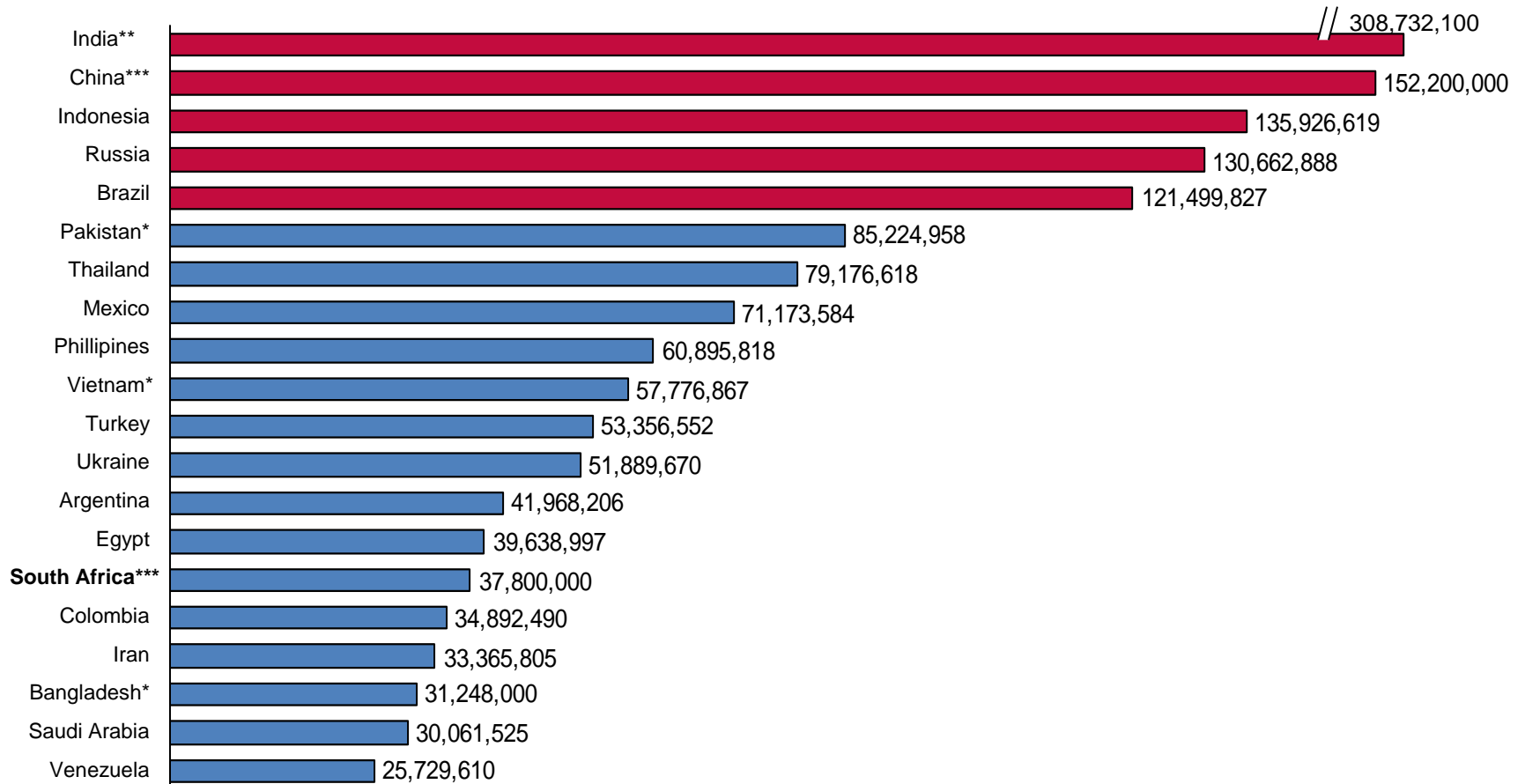
Once a phone is securely "linked" to a store of value, the customer is likely to retain the phone number as they can receive other benefits – cheaper airtime, money transfers from other card holders etc..

And this is not just a South African story...



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Total Number of Prepaid Subscribers
2008 estimate



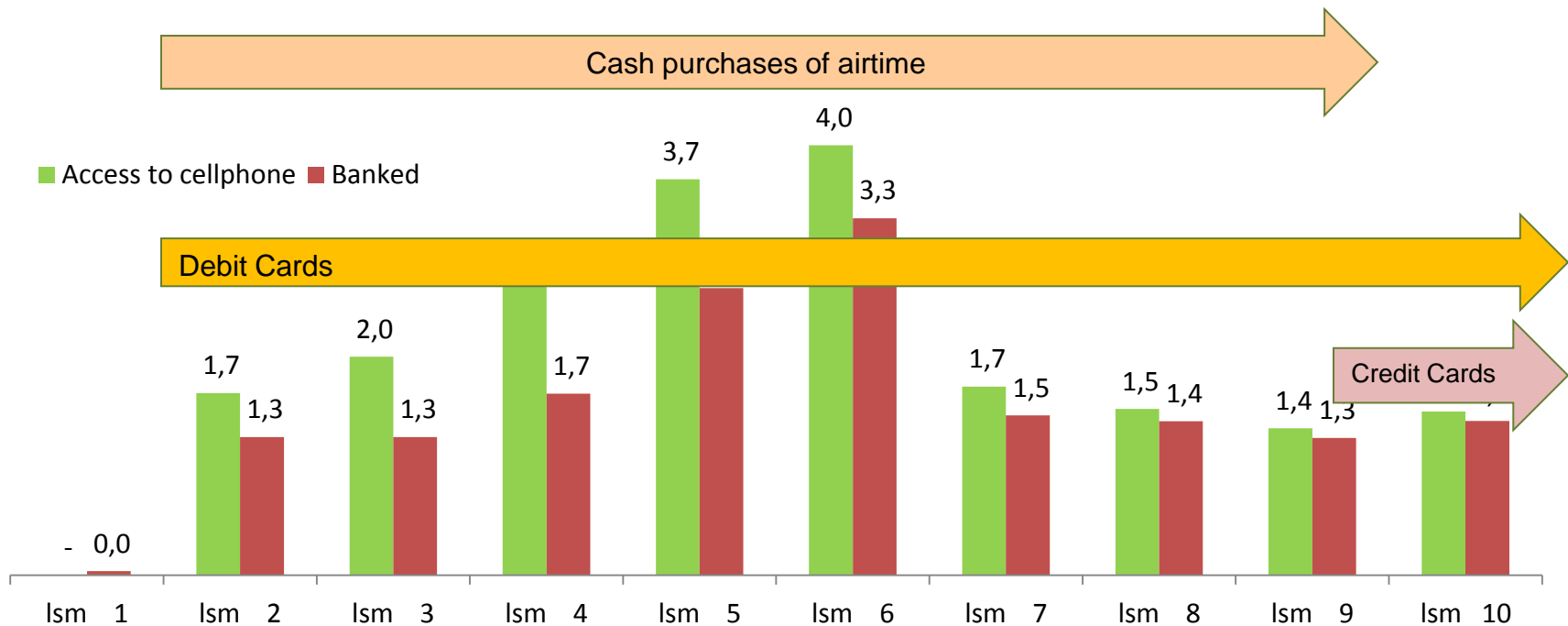
In South Africa the 32m debit cards open up a whole new world...



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The South African population: access to a cell phone & banked individuals

FinScope 2006, millions

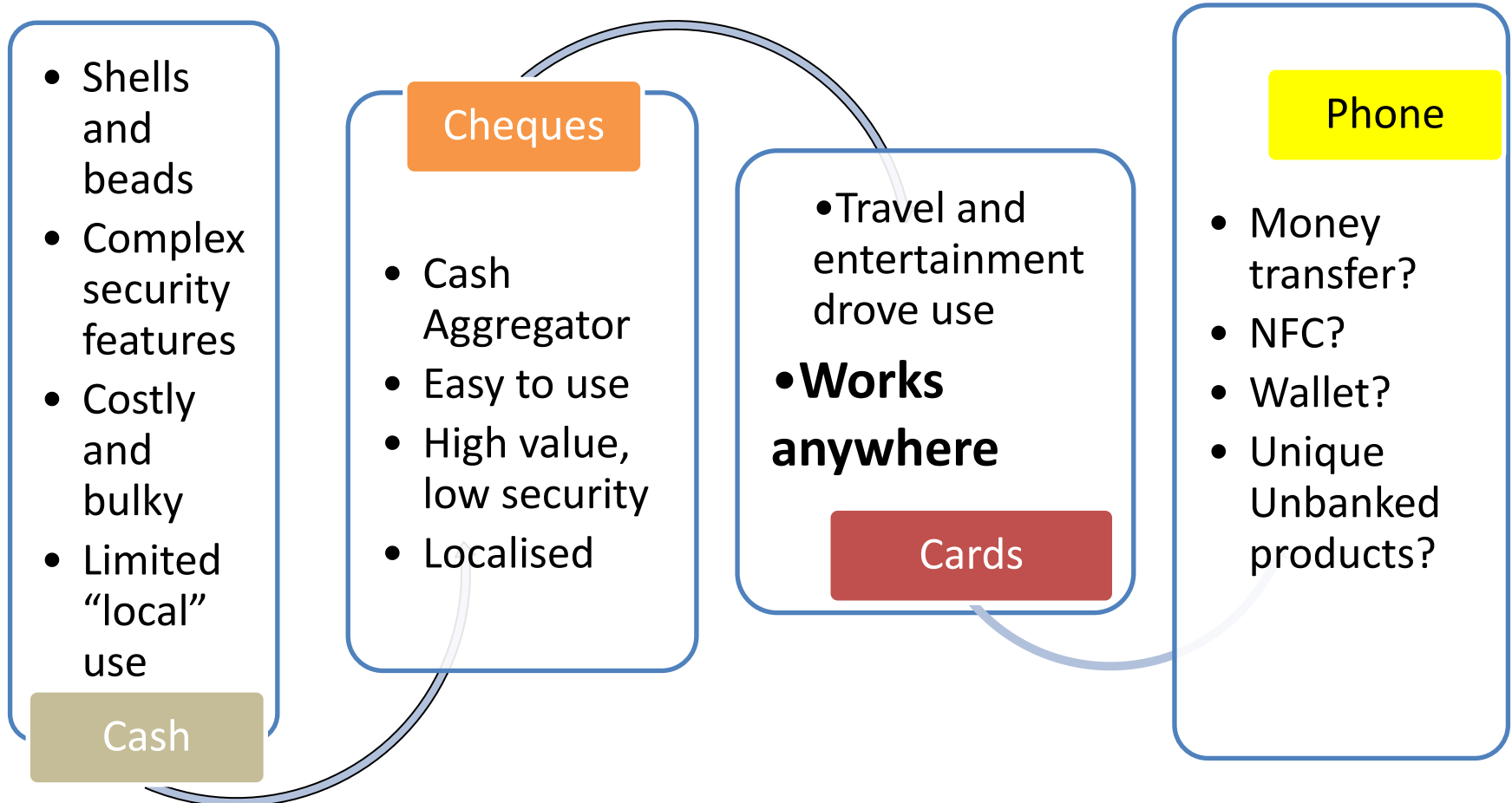


Over 60% population who have access to a cell phone are banked – 17 million individuals.

The evolution of payments instruments has seen cards dominant due to interoperability...

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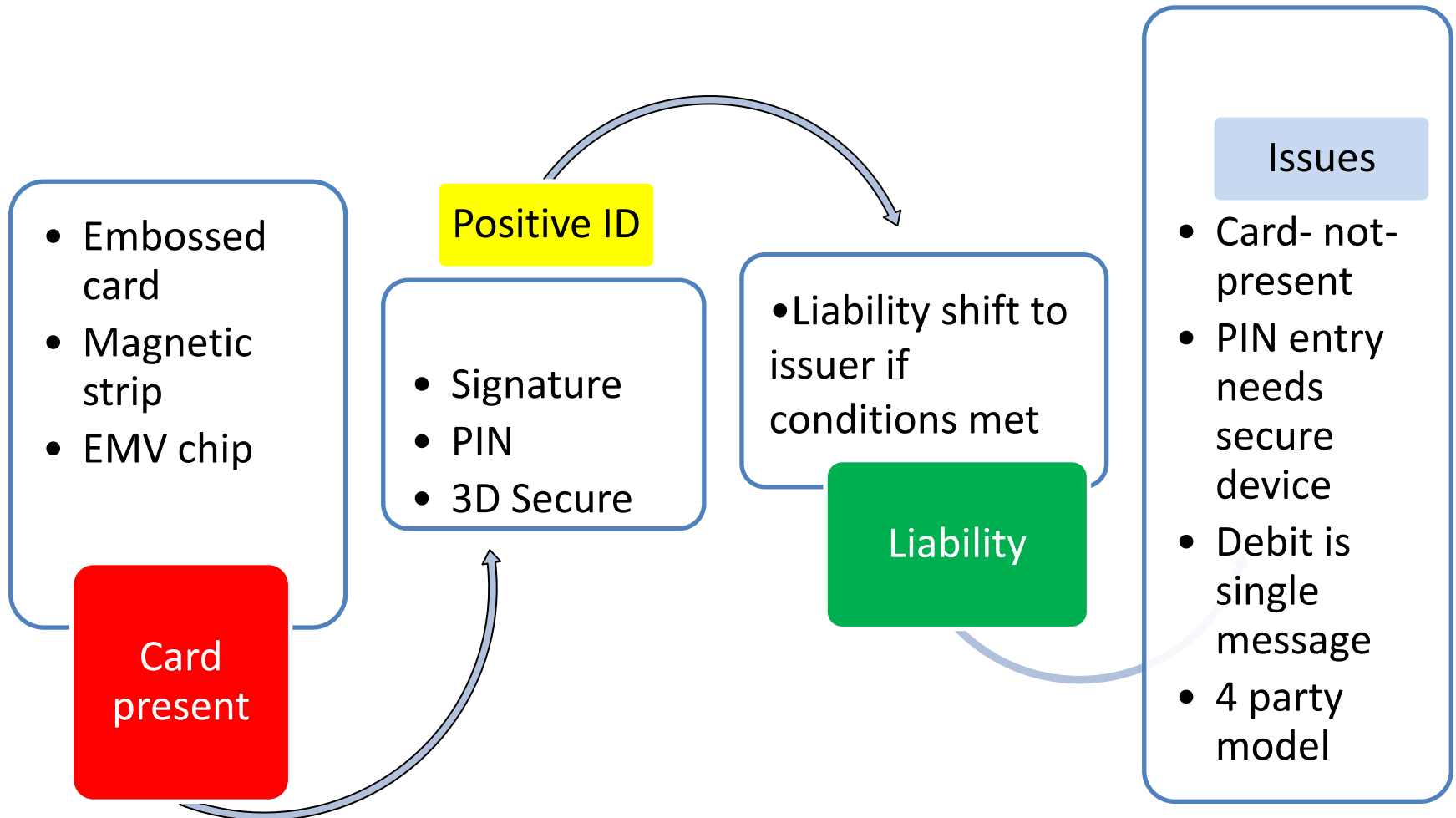
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Card companies' success has been in the use of standards to drive interoperability ...these standards are built on two key principles - card present and positive ID - for both credit and debit

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By combining a CNP with PIN we have created a new transaction type called AMT – Authenticated Mobile Transaction – works on both debit and credit cards

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USSD example

- Customer captures card details
- One card – one SIM – one phone
- USSD and IVR ideally suited

Card not present

Positive ID

- PIN request via SMS
- Enters PIN on phone
- Hardware security is via SIM
- For Personal use only

- Liability shift to issuer
- Local rules apply

Liability

AMT

- Customers can transact across multiple channels
- Always enters PIN on phone
- Can top up airtime, wallet, MTF etc
- Settlement flows in 4 party model

MM has launched a Hosted AMT switch called mDirect that provides a virtual point of sale capability to merchants...

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What is mDirect?

- mDirect sits between the merchant and the acquiring bank
- Allows customers to use channels such as USSD, WAP, WWW, IVR to initiate a purchase/MT
- Always requests a PIN in a secure session via SIM encryption
- Translates the transaction into an ISO 8583 Card-not-present with PIN or AMT transaction
- Routes to acquirer and onto issuer
- Routes authentication message to merchant
- Does not do settlement

MTN has launched MTN Eazi Recharge that uses mDirect to sell airtime – prime channel is USSD *141*10#

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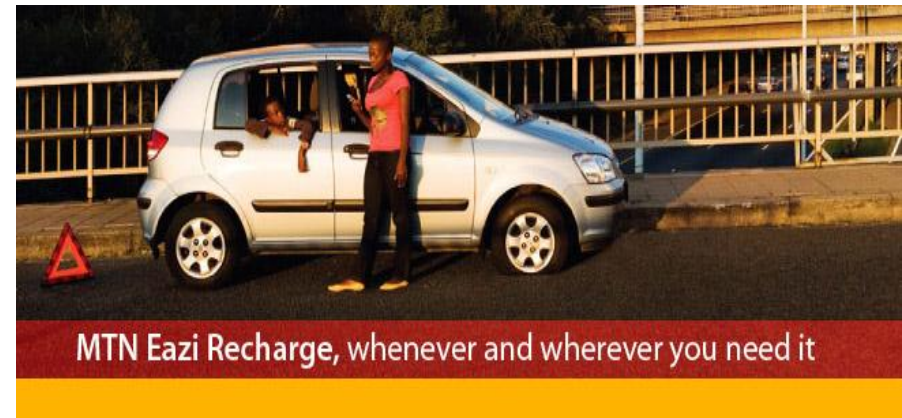
Now you can use your Visa credit card to buy airtime when you need it, wherever you are, with **MTN Eazi Recharge**.

Register today and get 25% free MTN airtime on your first recharge.

MTN Eazi Recharge is the safe and convenient way to buy MTN PayAsYouGo airtime using your Visa credit card. Now you can buy MTN airtime directly from your cellphone for your friends and family so you can stay in touch. With MTN Eazi Recharge you can rest assured that you'll always have the airtime to call them, without having to even leave the house. This service is available 24 hours a day, 7 days a week, no matter where you are. Register your Visa credit card today and make recharging easy with MTN Eazi Recharge.



Call the Customer Service Centre on 112 for more information. MTN Eazi Recharge Terms and Conditions apply. L.A.D.C. *141*10# recharge. Maximum 1000 recharge value per day. Some charges apply.



AMT powered by

mDirect

Authenticated Mobile Transaction

On the web customers simply enter their cellphone number on the web and then their PIN on their handset....

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Screen shot www.NGRcomputers.co.za

The screenshot shows a checkout page with the following sections:

- Address:** Parkview, Johannesburg, 2193, South Africa. A "Change address" button is visible.
- Payment Methods:** Please select the preferred payment method to use on this order.
 - Debit Card with Pin
 - Credit Card (Mastercard / Visa / Diners)
 - Direct Deposit/EFT Payments (Preferred Payment Option)
 - Quotation (Choose this option to generate a no obligation quote!)
 - Mimoney Vouchers
- Shipping Options:** Please select the relevant shipping option for your order.
 - Door to Door 1-6 Working Days - Major Centres (Fully insured)
 - Door to Door 2-8 Working Days - Regional Areas (Fully insured)

Customer experience

1. Customer proceeds to check out
2. Selects debit card with PIN
3. Is requested to enter cell phone number
4. On first transaction is requested to enter debit card number and expiry date (if required)
5. Customer is then prompted via a flash SMS to enter PIN and (where needed) CVC - on handset
6. Confirmation of auth is sent to both customers screen and to merchant

AMT powered by

mDirect

Authenticated Mobile Transaction

VISA



Critically mDirect allows all parties to benefit...

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MNO's and Merchants

- Access to customers previously excluded
- Reduced costs of airtime distribution
- Gains better control over channels

Banks

- Cash replacement
- Wider use of products
- Debit and credit card fraud reduction

Card associations

- Single message PIN based Debit cards can enter the e and m-commerce world
- Cash replacement
- Limited/no system changes required

Customers

- Cost of airtime should come down
- Able to now enter e-commerce market

Wallet providers

- Wallets and other emerging payment types can be funded from existing bank products

Where are we with mDirect AMT transactions in SA?



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- AMT transaction type approved by PASA for airtime purchases – issuers can choose to accept
- Visa and MasterCard waivers in place
- mDirect live for 18 months
- MTN Eazi Recharge– in trial last 18 months
 - Very high activity levels noted
 - Launch commencing in late Q4 2010
 - Working over USSD, WAP, WIG, IVR and www
- Fraud trends to nil when PIN used – both credit and debit
- Other merchant categories - live with 15 e-commerce merchants – on-us with Standard Bank for debit card with PIN
- Person-to-person: Card-to-card system live – in pilot with Inclusive Banking

Interoperability is the word...

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- Interoperability is the next big thing in mobile payments
- Its important to focus on acquiring mobile based payments and not just issuing and account opening
- Don't forget the five elements of a payment:
 - Registration
 - Authentication
 - Authorisation
 - Settlement
 - Information
- In emerging markets where debit cards with PIN exist – Authenticated Mobile Transactions can create the interoperability bridge between mobile payment products and the banked world

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Thank You