The Anti-Bank: Privatized biometric encrypted social grant delivery in South Africa

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The difficulties of real bureaucracy
Pensions, Child Support, Disability (HIV, TB), 13 million people
Home Affairs: Problem No 1
No 2 Capturing Good Data
No 3 In a society organized around fingerprint registries
Biometric Registration

Automated
Paperless
Privatized
Delinguistic
Ten templates
Pensioners’ Committees
Private Security
Automating payments Card to Card
Sagem’s Morpho-touch
Attended fingerprinting, no enrolment problems
No talking
Fingerprint-based grants, no pin codes or passwords
Smartcard equipped ATMs
Only the recipient handles the Money
Banking the unbanked
# Funeral Plans

## 1. Personal Details of Life Assured
- **Title**: 
- **Surname**: 
- **Address or P.O.Box**: 
- **Pensioner Number**: 
- **ID number (if different from Pensioner number)**: 

**NOTE**: Please check yearly

**hereby apply for assurance as indicated by me in the schedule of benefits**

## 2. Premium Payment Authorisation

1. The lifeholder of this policy hereby authorises the pension payment to be collected the monthly premium indicated on this policy document and pay it over to the underwriter of the Cornerstone Pension Plan in terms of the Underwriting Agreement between Cornerstone and the underwriter.

## 3. Conditions
- The excess date of this policy is the date of the final premium deduction.
- The total death benefit payable under this policy will be the amount exceeding with the benefit applicable to the chosen cover plus the benefit applicable in the event of the death of the lifeholder or the beneficiary, or both. The benefit is payable under 4.1 and can be applicable.
- Payments for the premium payable for the full terms and conditions applicable to this policy. This policy certificate and the master policy document is payable at all times to Cornerstone for inspection and the policy contains the necessary proof of non-negotiability or the Cornerstone Pension Plan.
- In the event of death or the assignment of the assured named herein, the beneficiaries will pay the benefit amount to the policyholders' spouse, children or dependents.
- Insured interest in the proceeds of the policy, the sum assured and in the case of death, the sum payable under 4.1 and can be applicable.
- The excess date of this policy is the date of the final premium deduction. This policy certificate and the master policy document is payable at all times to Cornerstone for inspection and the policy contains the necessary proof of non-negotiability of the Cornerstone Pension Plan.
- In the event of death or the assignment of the assured named herein, the beneficiaries will pay the benefit amount to the policyholders' spouse, children or dependents.
- Insured interest in the proceeds of the policy, the sum assured and in the case of death, the sum payable under 4.1 and can be applicable.

## 4. Schedule of Benefits

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total Benefit</th>
<th>Total Benefit</th>
<th>Total Benefit</th>
<th>Total Benefit</th>
<th>Total Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 69 years</td>
<td>R4 500</td>
<td>R8 000</td>
<td>R7 500</td>
<td>R8 000</td>
<td>R9 000</td>
</tr>
<tr>
<td>70 – 79 years</td>
<td>R2 300</td>
<td>R3 000</td>
<td>R2 500</td>
<td>R3 200</td>
<td>R3 300</td>
</tr>
<tr>
<td>80 years &amp; Over</td>
<td>R1 500</td>
<td>R2 000</td>
<td>R2 200</td>
<td>R2 700</td>
<td>R3 00</td>
</tr>
</tbody>
</table>

**NOTE**: Chosen benefit premium and age must correspond.

## 4.1 Benefits payable during waiting period:
- Accidental Death = Total Benefit
- Nature Death – month 1-3: R500.00
- Nature Death – month 4-6: R750.00
- Nature Death – month 7: Total Benefit
Lending without risk
Aplitec-owned microlending
Selling on Commission, Explaining automatic deductions
The heart of the new welfare supported informal economy: Umlazi
Aplitec’s solution
Who is Aplitec? People

• Serge Belamont,
  – developed and managed the SASwitch interbank system, 1983 – 1987
  – Third largest bank switch in the bank in the world
  – Entrenched conflicts over standards, mostly against IBM clients

• Also Hanoch Neishlos, Wits Computer Science …
Who is Aplitec? Investors

• Initially, in 1997, Cosatu’s Kopana ke Matla trust
• Nedbank (28%), sold in 2007
• Serge Belamont & other staff own 12%
• Doing an “Aplitec”
  – Nasdaq relisting in 2005, market cap increased 15 fold, from $100 million to $1.5 billion
• Obscure South African investors
  – Trust in the Cayman Islands
Aplitec divisions

• May 1998, Net1, Nedbank’s supplier of smartcard and pos equipment
• March 1999, Cash Payment Services, FNB owned biometric pensions delivery scheme
• 1999 & 2000, two large microlenders
  – Moved their clients to smartcards
• 2006 Prism & Easypay, largest online SET
  – 200 municipalities, utilities, traffic departments
  – Retail interbank
• 2007 merger with Grindrod Bank
  – Smartcard wages and banking
Aplitec Projects

• Taxi Recapitalization 1999
  – Using smartcards to control overloading, routes, ‘corruption’
  – Ended in violence
• Massive expansion of grants in 2002 – 3, from 2.5 million to 13 million recipients
• African bank switching (Ghana, Nigeria, Malawi, Botswana, Namibia) and UEPS
Aplitec Infrastructure

• Biometrically-encrypted smart cards
  – We are talking people that are not going to remember the pin number on the card. I cannot remember my pin number on my card. So we have a system here, which is completely based and it has been based for the last ten years on fingerprint technology. We do not use pins at all. There are no pins …
  – Encrypted and unencrypted wallets

• 4000 Smartcard equipped POS Devices
  – Mostly in the countryside
  – 2005 $ 133 million, 2006 $ 614 million
  – 850,000 clients using the POS to draw grants

• 8000 mobile and fixed payment points
• Easypay
Aplitec and the EMV Std

• Big four interest in a ‘common standard’
• Belamont – EMV is the poor paying for the rich
  – “There is no fingerprint technology on Visa and MasterCard. It does not work offline. It cannot do money transfers. It is expensive. And therefore we cannot use this technology and therefore we removed it but somebody had managed to put Visa/MasterCard, which is a proprietary money making organisation worldwide, as a normal standard for the country.
• Aplitec’s deliberately proprietary standard
  – The UEPS is proprietary. It is designed for a specific market that requires specific features and as such is not compliant or compatible with other smart card systems. If it were compatible with other systems, the usefulness of the UEPS would be as limited as these other systems and could not provide a solution for the unbanked populations of the world.
• Dual System & Morphing …
Politics

• Relationships with Government
  – Politics of “Joint Venture” in South Africa and beyond
    • Prince Gideon Zulu in KZN
    • Sandi Majali’s Permit Group
  – Also Accountability
    • Skweyiya’s fury in 2000 over the death of four pensioners in queues

• Foresight on the HANIS debacle
  – July 2000: “Government will separate the payment application from the ID card and leave the payment card to the financial industry“