

# Mobile Biometrics: The Expectations and The Realities



**THE ANNUAL FORUM & EXPO  
ON ELECTRONIC IDENTITY IN  
AFRICA**



# Who we are...

1997

Foundation

Head Quarters

- Nairobi, Kenya

Global Delivery Centre

- Kenya, India and Nigeria

1600

EMPLOYEE STRENGTH

24

GEO PRESENCE (COUNTRIES)

300+

PROJECTS EXECUTED

11

PROJECTS, OWN IP

BUSINESS UNITS

IT Solutions, BPO, Education and Training

QUALITY PROCESS

SEI CMMI LEVEL 3  
ISO 9001:2008

UNIQUE SOLUTIONS

70



CIO 2013 Top 100 Companies in East Africa Award

CIO 100

RANKED No. 2 — in —  
**Deloitte**  
Technology Fast50  
Africa 2014  
Only East African Fastest growing IT Company



Entrepreneur Of The Year 2014



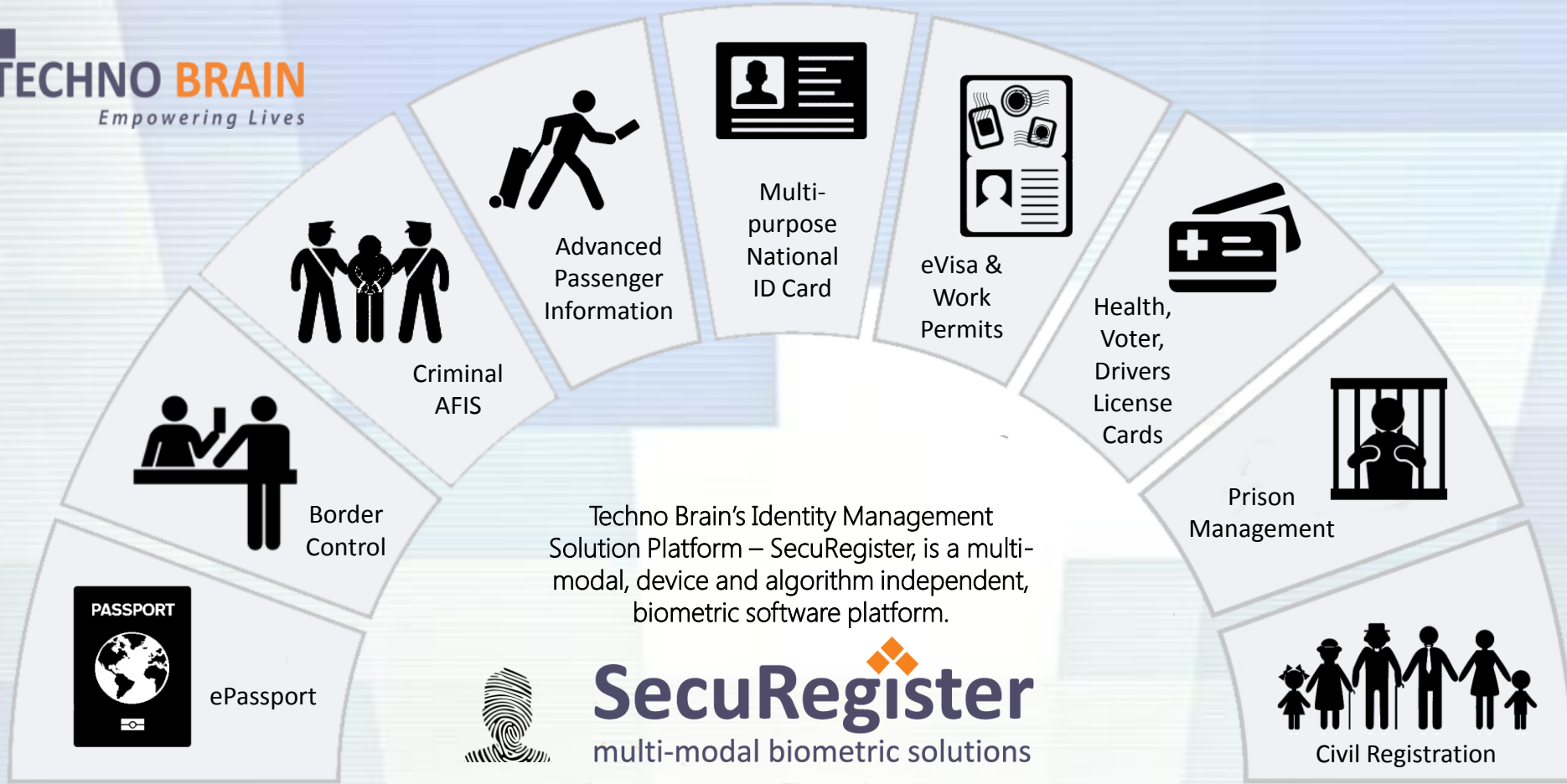
Top 100 Mid-Sized Companies



Part of Microsoft's CityNext Initiative



Named into 2014 Microsoft Dynamics President's Club



- Passport Issuance
  - Govt. of Tanzania,
  - Govt. of Malawi
- Social Security Cards
  - National Social Security Fund, Tanzania
  - Zanzibar Social Security Fund
- Civil Registration
  - Govt. of Ethiopia
- Driver's License
  - Govt. of Ethiopia
- Biometric Payroll Audit – Govt. of Swaziland
- Field Registration System, Innovations for Poverty Action, Malawi
- Financial Services Cards – Bank of Uganda
- Border Control System, Govt. of Malawi
- Biometric Matching Service – National Microfinance Bank, Tanzania

Fingerprints   
 Iris   
 Photo   
 Signature   
 Bio-details



# Paradigm Shift - Biometric Growth on fast track mode with Mobile technology

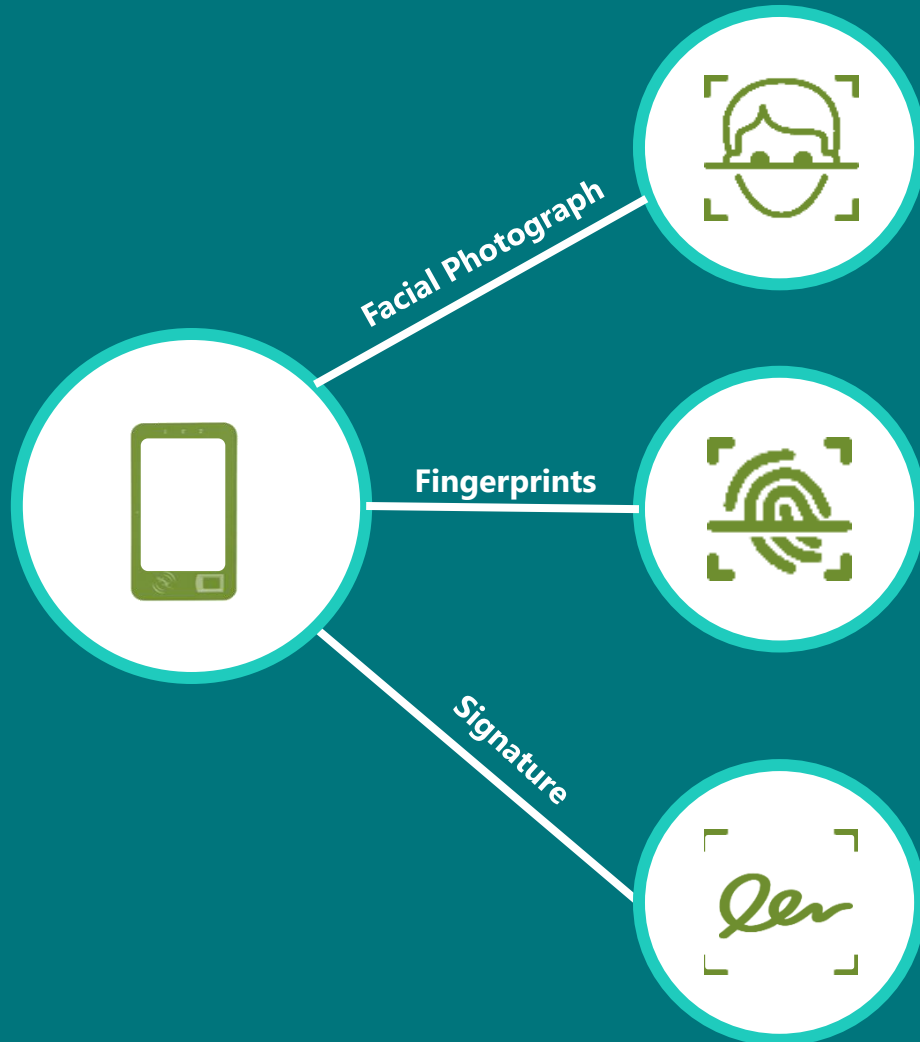
## Past

- Biometrics was in Controlled Environment
- People go for biometric registrations
- Required huge infrastructure
- Fixed stations for Registrations and Verifications
- Less usage

## Current

- Shifted to Uncontrolled Environment
- Biometrics reach people
- Requires minimal infrastructure
- Remote Registrations & Verifications
- Widespread adoption

# Mobile Devices turned into Biometric Scanning Machines



- **Inbuilt powerful scanning tools**
- **Data incompliance with Biometric Standards**
- **Why Mobile Biometrics**
  - **Easy to Deploy**
  - **Intuitive for operating**
  - **Less Infrastructure cost**
  - **Wide range of uses of the biometric applications**
  - **Enables access to interior populations**



2,500 mobile device deployment

countries

6

4

languages

15+ application/usage scenarios



3 million (and counting) registrations

# Case study – Registration of 500,000 small-holder farmers (Financial Inclusion Program)

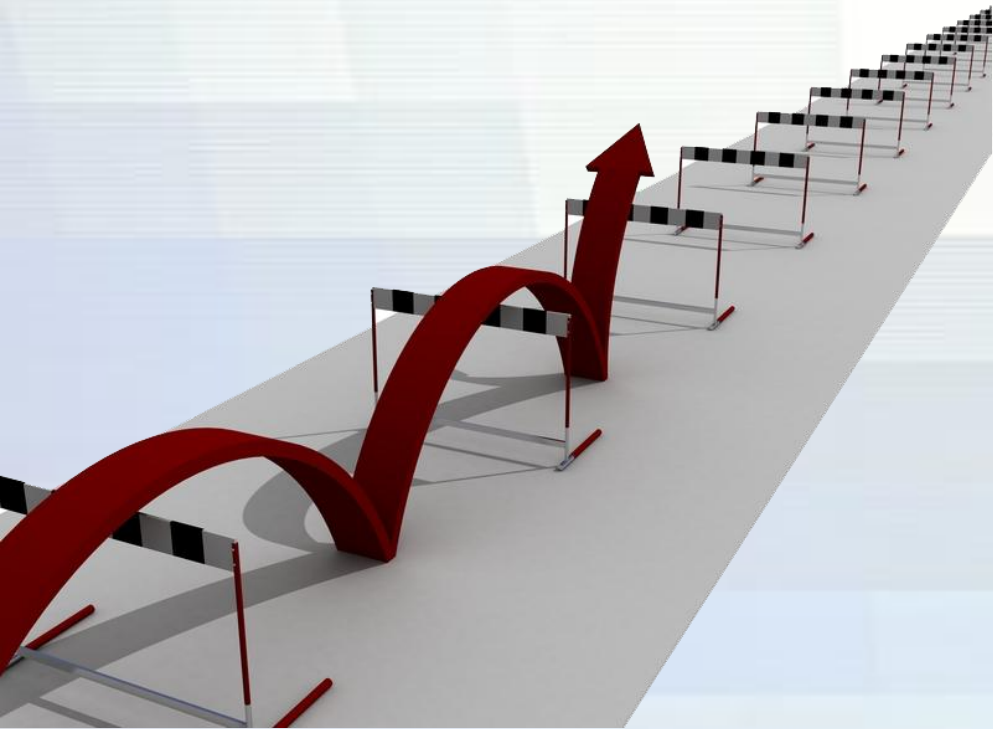


150 mobile units  
4 months



# Challenges

- Network Connectivity issues
- Physically security of the hand held device
- Protection of Biometric data on the device
- Secure Data transmission
- Durability
- Lack of Sequencing while capturing fingerprints thus more complexity in matching
- Less storage capacity
- Unreliability of power connection/Battery life of the device
- Less quality capture of biometric information e.g. the facial photograph is not of high quality (low resolution)
- Less computing power of the hardware
- Extreme weather conditions



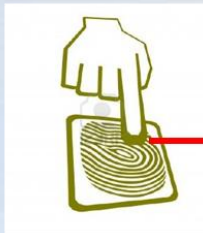
# SecurTab device



Barcode Scanning



Card Reader



ANSI/ISO Certified  
Fingerprint  
Scanner



Touch screen



Secure SD Card

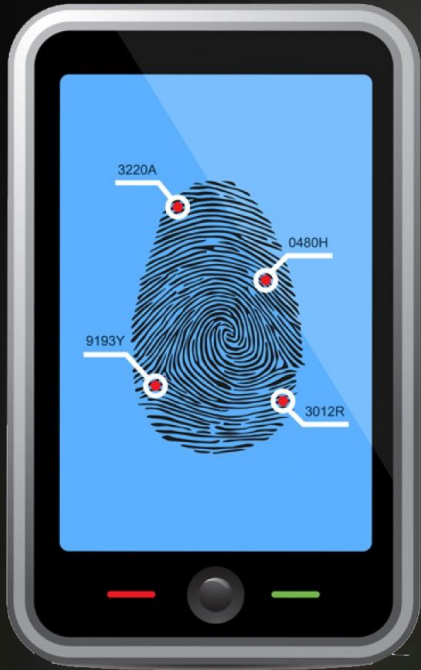


SIM Card

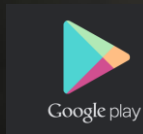


Upto 8hrs of  
usage

# Holy Grail – Enrollment As a Service



Commercially  
available devices



Thank You...



**Nandan Gopalakrishna**

Director – Innovations  
Techno Brain, Kenya

[nandan.gopalakrishna@technobraingroup.com](mailto:nandan.gopalakrishna@technobraingroup.com)