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Multibiometrics in the context of ID solutions for the financial sector

and Experience on the BVN Project in Nigeria



Jan Nack • 27th of April 2017
ID 4 Affrica Windhuk

DERMALOG

Agenda

1. Dermalog
2. Video
3. Details on the Nigeria Banking Project
4. Lessons Learned, Experience; Challenges
5. Outcome

DERMALOG IDENTIFICATION SYSTEMS GMBH



Headquarters:
Hamburg, Germany

Branch office:
Kuala Lumpur, Malaysia

Founded:
1995 by Günther Mull

Focus:
Biometrics, AFIS and
Fingerprint Livescanner

Customer Base:
many Government customers
worldwide, recently also B2B
customers



DERMALOG Banking System in Nigeria

AFIS > Fingerprint > Face > Iris & More
Biometric Recognition and Devices

DERMALOG

National Identification Systems
Components & Total Solutions

MADE IN GERMANY

The Customers



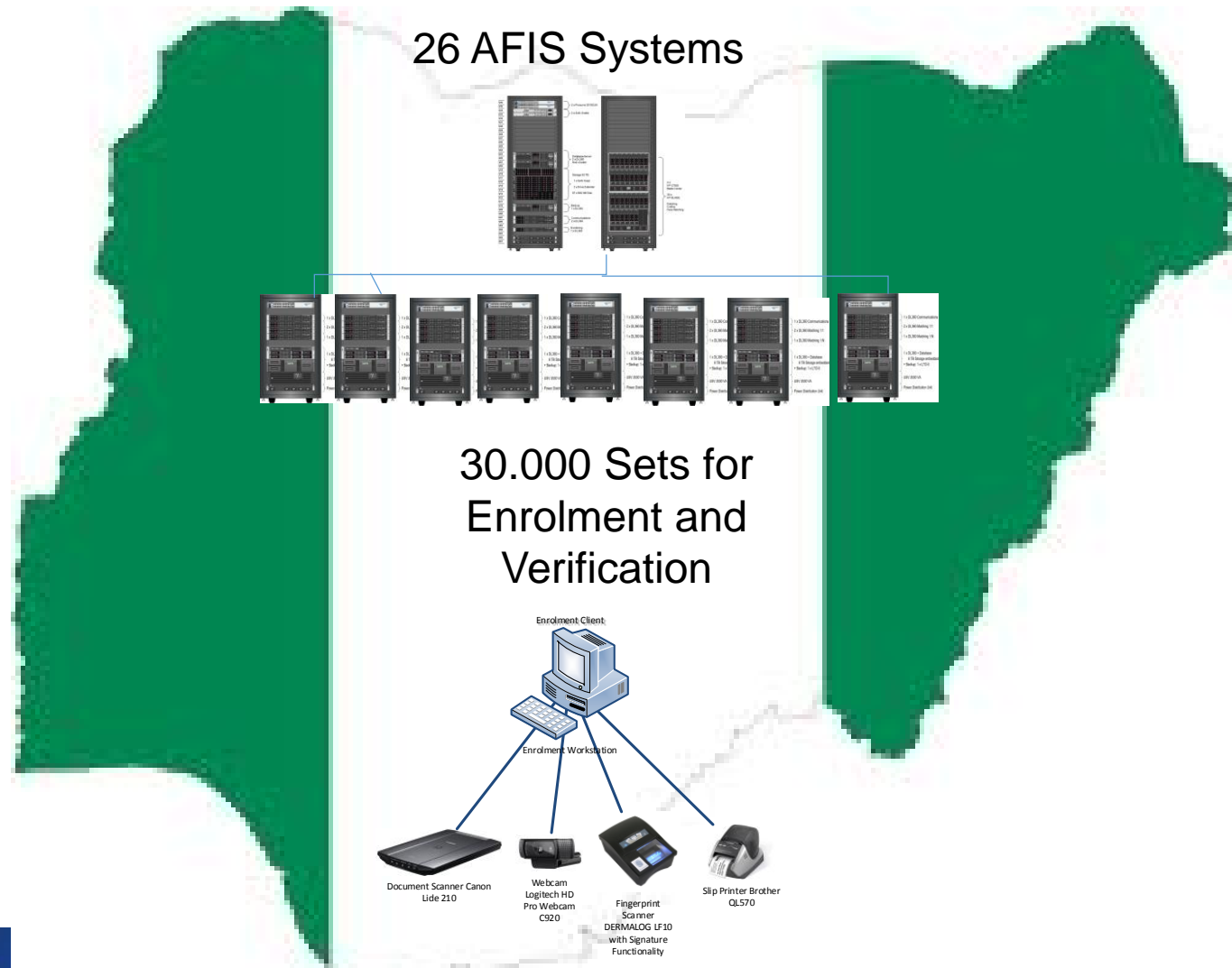
The requirements of Cash-Less Nigeria project necessitates integration of NIBSS to Banks, Switches, Non-Bank Financial Institutions, Mobile Payment Operators, among others

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The Project

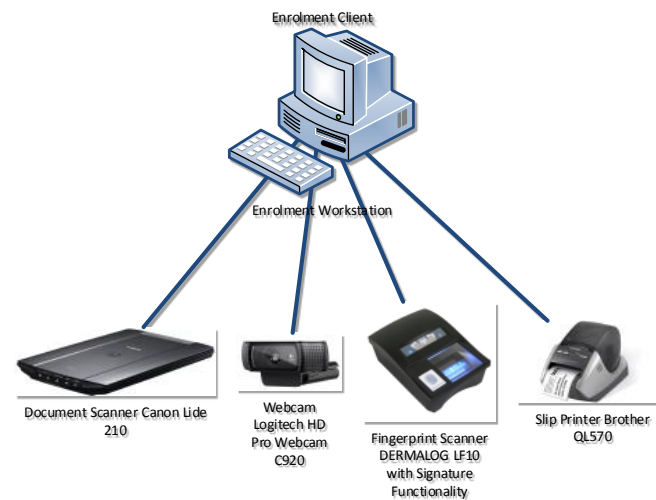


- 24 Banks involved
- 5000 Branches
- 50 Million Customer

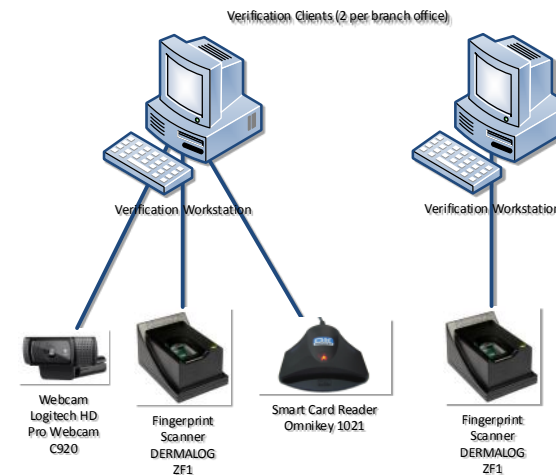


Installation of 30.000 Sets for Enrolment and Verification

10.000 Enrolment Sets



20.000 Verification Sets



5.000 Branches

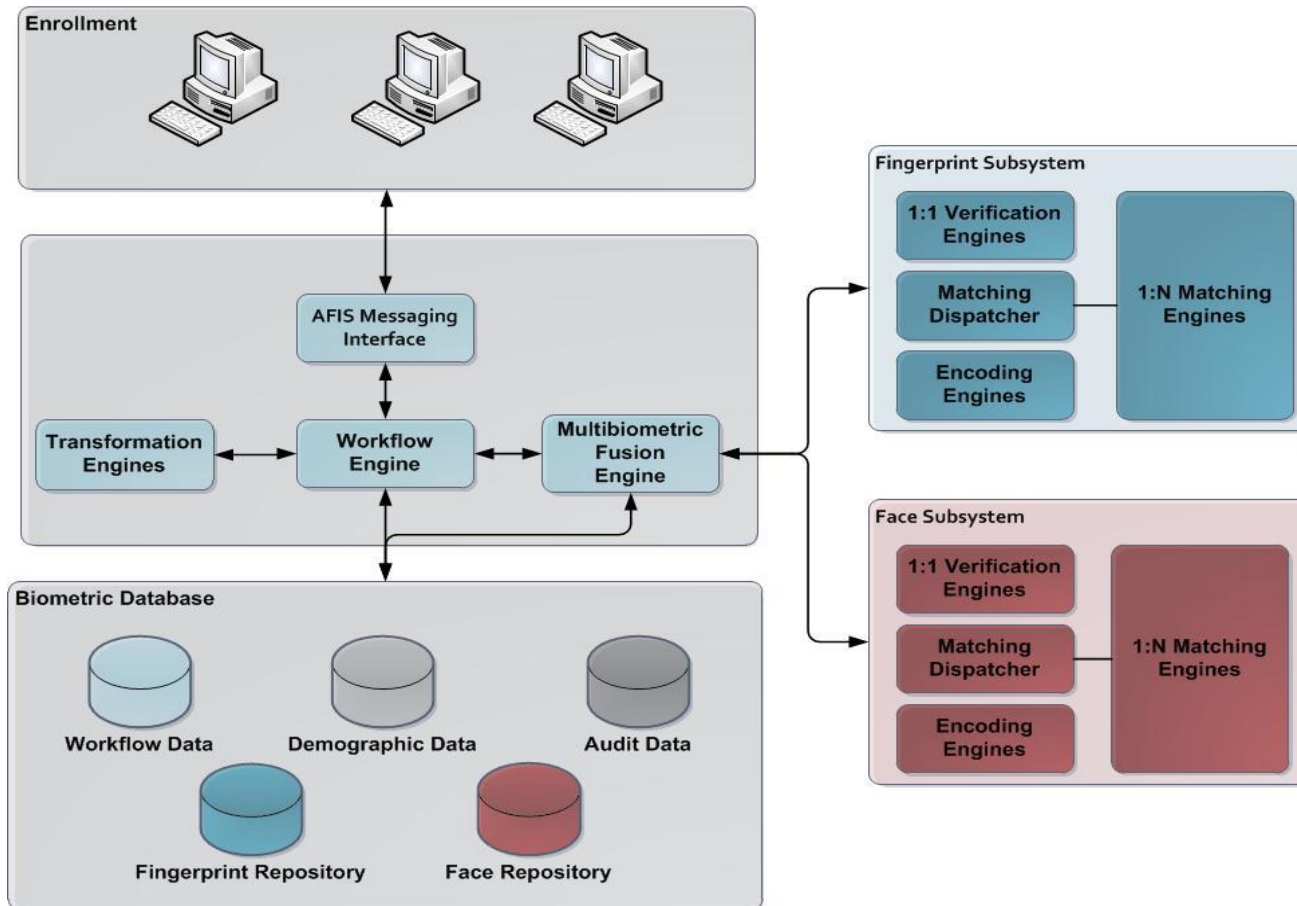
BVN Registration



Biometric registration
with
fingerprints,
face
signature and
personal data



DERMALOG ABIS



Two key concepts of the architecture are represented:

- Distributed, scalable, component-based architecture. The architecture provides a clear separation of duties into various components. This distribution allows individual components to be scaled vertically and horizontally, as necessary, to support increased loads.
- Enterprise integration via an integration component, concentration of the communication through the AFIS Messenger ensures a consistent and flexible application integration implementation.

Project figures (April 2017)

Total bank clients: ~50 million.

Counters equipped with identification and verification systems: 30,000

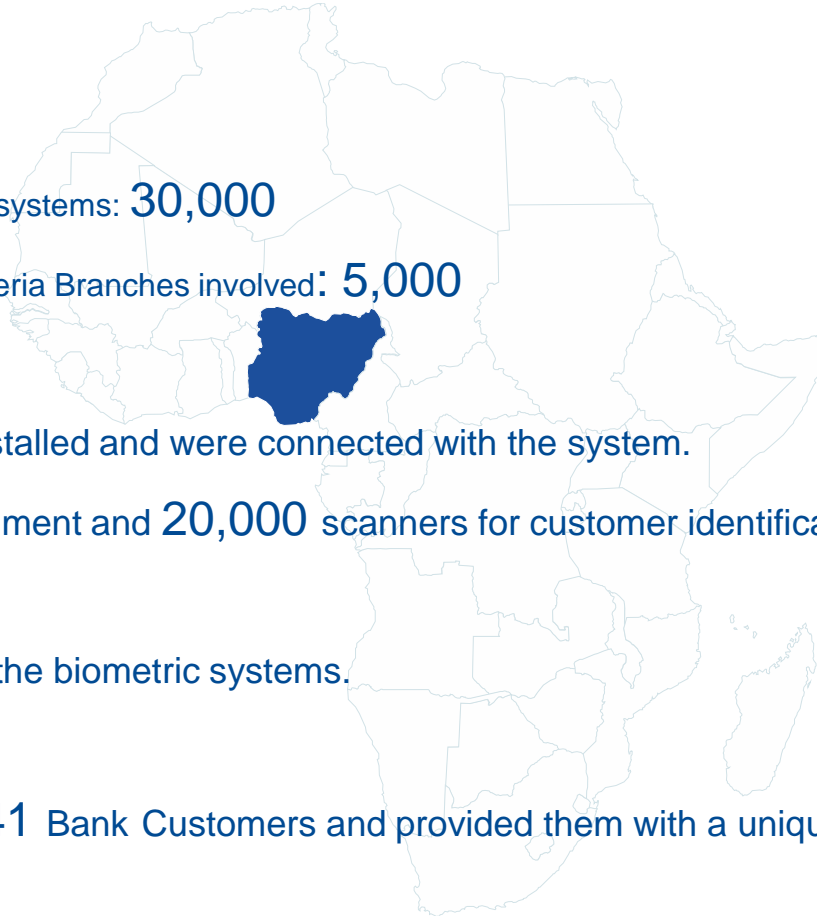
Participating banks: 24 plus the Central Bank of Nigeria Branches involved: 5,000

Within 6 month 5.000 branches have been installed and were connected with the system.

A total of 10,000 systems for customer enrollment and 20,000 scanners for customer identification.

In sum we trained 20,000 operators to apply the biometric systems.

Until Yesterday, we have captured 28.840.241 Bank Customers and provided them with a unique Biometric Verification Number (BVN)



2. Lessons Learned, Experience, Challenges

Registration process

Double Registration (by mistake)

- person has bank accounts in different banks

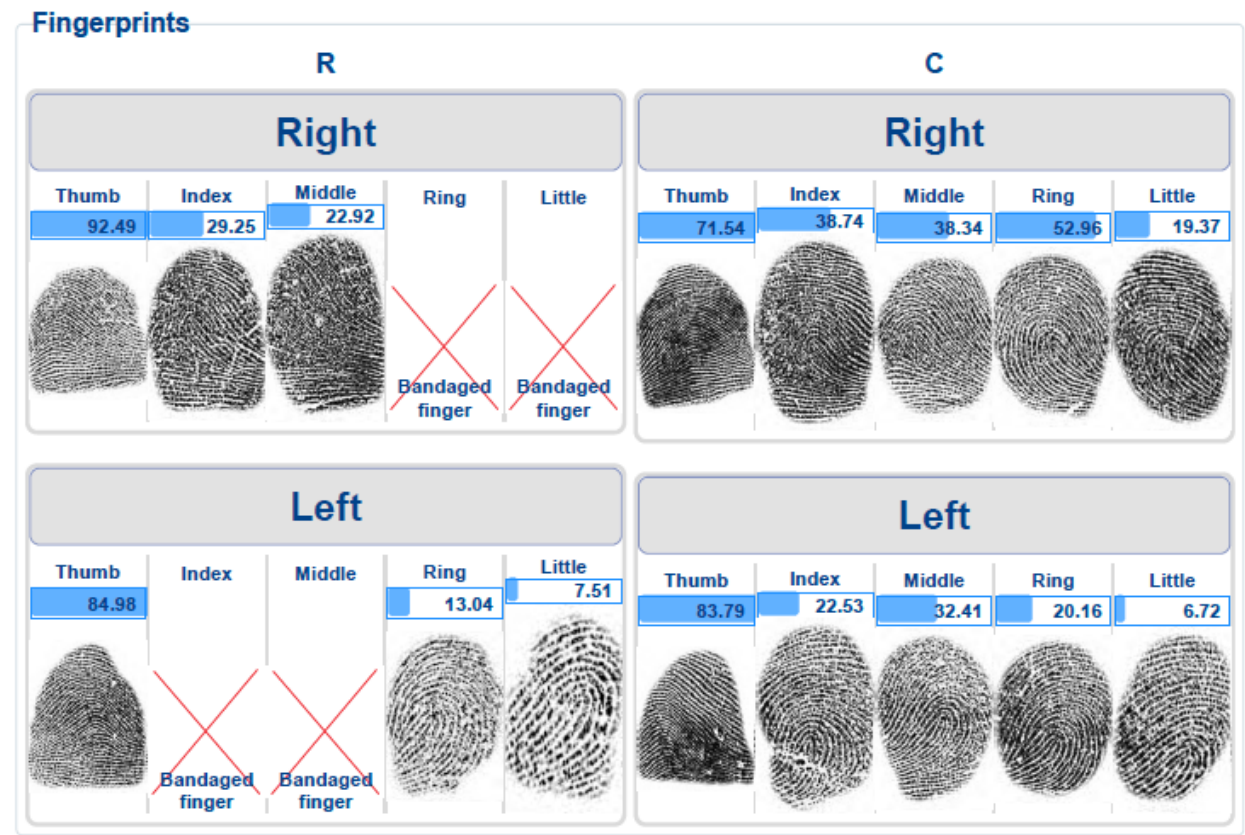
Double registrations, (intended)

- Involvement of the Operator
- Mixed up of fingerprint positions (very low according to LF10)
- Capturing fingers from different person in one 10 print record
- Missing fingers

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Comparison Report

R: {BVN: 22371518793 enrolled 13/01/2016} vs C: {BVN: 22270419854 enrolled 10/06/2015}




Crossmatch Display											
Request	Candidate										
	Finger	RT	RI	RM	RR	RL	LT	LI	LM	LR	LL
	RT	62.04	13.77	17.14	13.3	12.09	16.27	13	10.28	13.18	10.99
	RI	14.36	42.79	15.03	13.97	11.66	11.62	16.01	12.86	11.17	8.29
	RM	10.05	8.48	15.18	15.34	13.15	10.36	14.18	11.18	14.02	2.12
	LT	14.59	9.28	17.63	14.42	6.87	27.07	10.29	14.15	10.71	8.94
	LR	11.7	8.87	11.69	20.58	17.27	10.46	15.66	18.26	46.29	6.69
	LL	2.11	13.71	2.11	2.11	10.65	2.11	3.92	2.12	13.23	11.94

Face Recognition (2nd Biometric)

Images

Facial Image {Matching score: 88}

R C



Signature Image

R C

Empty Empty

Encouragement for Registration

Deadline 16th of June 2015



- "Customers Storm Banks For BVN Enrollment As Deadline Approaches"
- Up to 400,000 registrations in one single day
(average 100,000 per day with the weeks before the Deadline)
- Up to 28,000 double identities prevented in one single day
(average 7,000 per day)

Lessons Learned

For the banks:

- Many incorrect account information
- Many different identities of individuals in the Banking Systems

For us:

- It is possible to realize large scale Biometric projects in Africa

Outcome:

- Reduction of Fraud
- Improved KYC data at each Bank
- New markets for Banks
- The “unbanked” people get access to the banking System

What comes next?



BIOMETRIC ATMs



Mobile Biometric devices (POS)



Mobile banking with Biometrics



Online banking with Biometrics

Multi-Biometrics



Face



Finger

or Multi-Factor Authentication

- Password
- Voice

Thank You!



Internet

Receive further information on our company website
www.dermalog.com

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MADE IN GERMANY



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