Agenda

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01 **Why a national digital identity?**

02 **Building a trusted national digital identity**

03 **Digital identity in use (demo)**

04 **Key take-aways**

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01

Why a National Digital Identity?

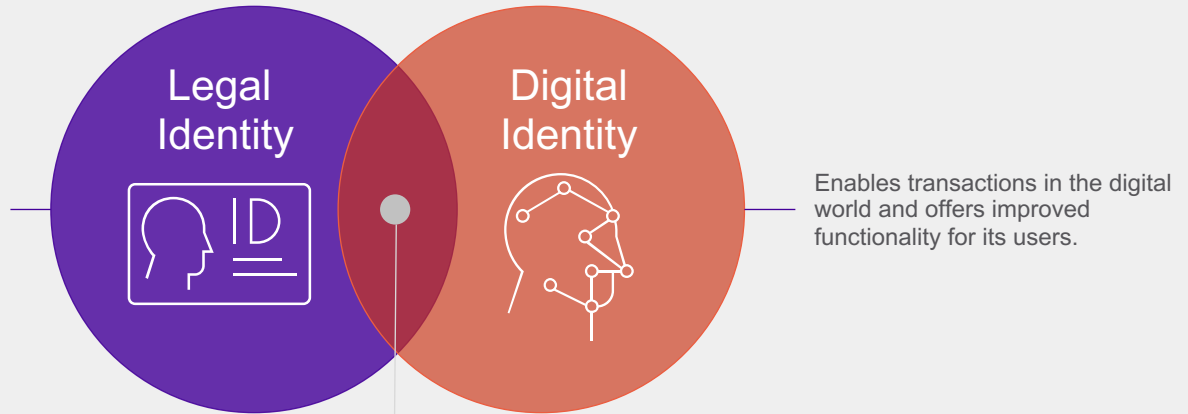ID4Africa
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What is Augmented Identity?

A closer look at physical and digital identities

Legal Identity

Based on paper-based ID, physical identity was designed to enable face-to-face transactions among entities.

Digital Identity

Enables transactions in the digital world and offers improved functionality for its users.

Augmented identity is an identity that ensures privacy and trust and guarantees secure, authenticated and verifiable transactions.

The Drivers of Digital Identity
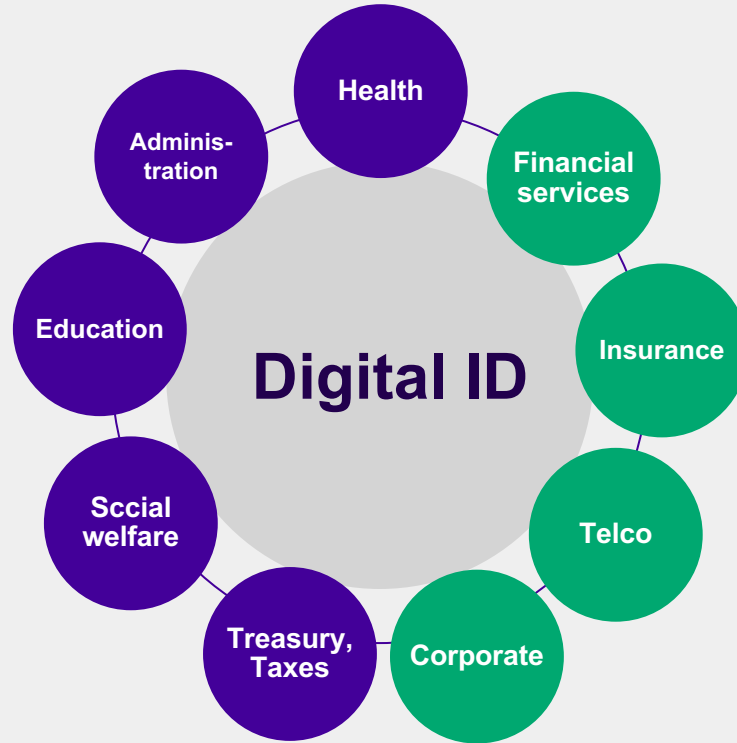
Understanding the need to establish trust

Growth
New customers acquisition
Propose new services & products

Identity inclusion
Social and financial inclusion
Reach the digital economy last mile

Compliance
AML, KYC, PEP, checks
Data privacy

Convenience
Accelerate the existing verification processes
Delivery of a convenient and friendly user experience

Fight against fraud
Identity theft and fraud
Impersonation

Operational efficiency
Reduce onboarding cost
Less paperwork

Digital ID benefits citizens, public and private sectors

Public sector

Benefits

- Political inclusion
- Rights protection
- Social inclusion
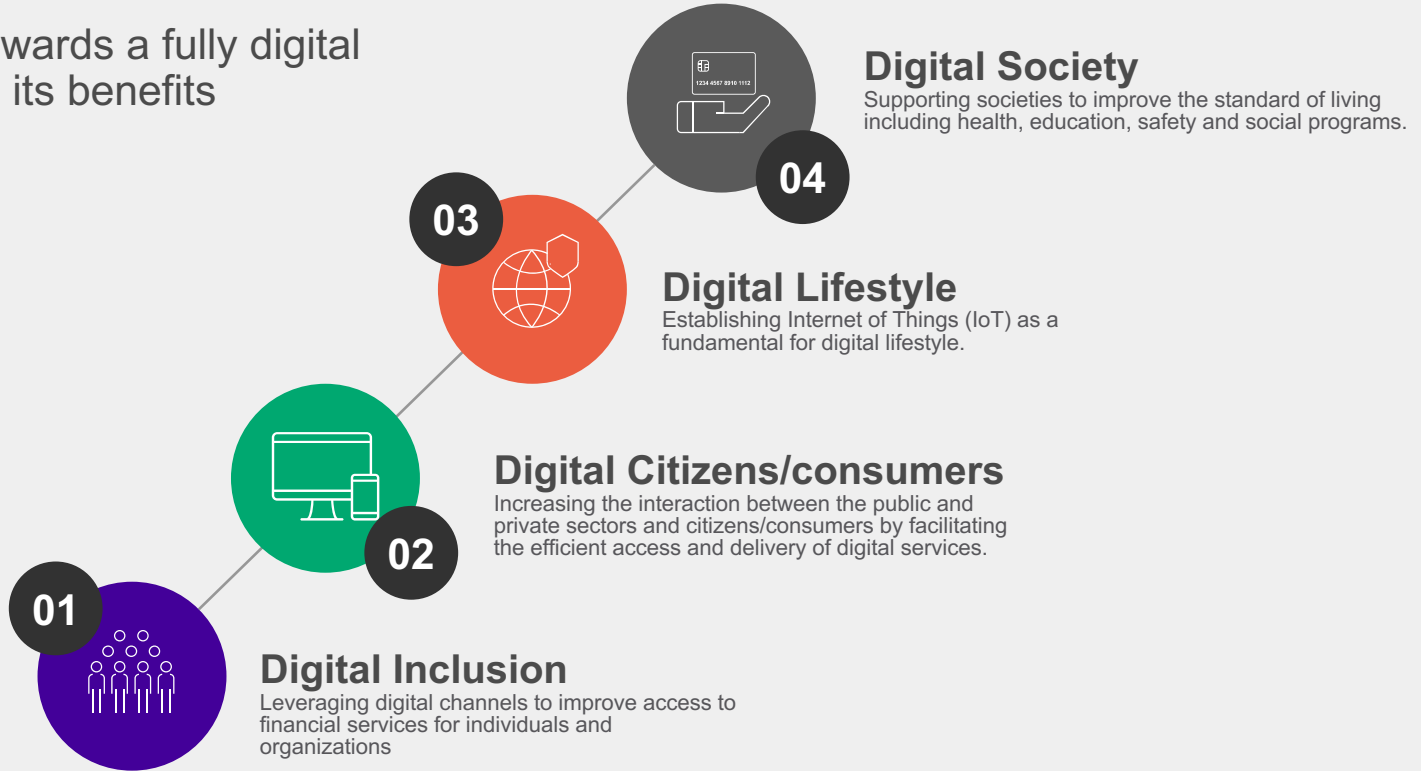- Fraud fighting
- Reduce informal share of economy

Digital ID (center)

Surrounding circles: Health, Financial services, Insurance, Telco, Corporate, Treasury, Taxes, Social welfare, Education, Administration

Private sector

Benefits:

- Liability shift of identity verification for digital services
- Support to regulation compliancy (KYC)
- Reduce risk exposure
- Access identity attributes and reduce errors and fraud
- Faster service onboarding (digitalization)
- Service personalization (unique identification)
- Increase convenience

Unlocking Digital Value to the Society

The path towards a fully digital society and its benefits

04

Digital Society
Supporting societies to improve the standard of living including health, education, safety and social programs.

03

Digital Lifestyle
Establishing Internet of Things (IoT) as a fundamental for digital lifestyle.

02

Digital Citizens/consumers
Increasing the interaction between the public and private sectors and citizens/consumers by facilitating the efficient access and delivery of digital services.

01

Digital Inclusion
Leveraging digital channels to improve access to financial services for individuals and organizations

02

Building a Trusted National Digital Identity

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Central registries: the ideal foundation for a national ID infrastructure

Central registries:
the authoritative roots of digital identity

- **Population registry**
- **Civil registry**
- **Biometric registry**
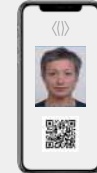- **Functional registries (passport, driving license,…)**

Trusted Digital Identity

Digital ID

- **Document-based**

- **Smartphone-based**

- **Biometric-based** (e.g. Aadhaar)

Three forms of digital ID

Digital ID	Digital usages	
	Face to face Usage identification/Attributes	**Online** Authentication/Signature/Attributes Exchange

1- Document-based

2 - Smartphone-based

3 - Biometric-based (e.g. Aadhaar)

These 3 forms of digital ID
are complementary

Visual inspection   or

18 +
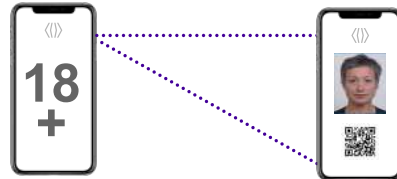
In-person (dematerialized document) use case
converging rapidly with online use case
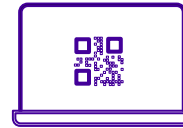
Three forms of digital ID are complementary

|	Enrollment/ Issuance	Benefits	Challenges
	• Digital ID on chip issued together with the physical document	• **Universal issuance** – no prerequisites on citizen	• Usage requires **special hardware** • Usability **may hinder adoption** by service providers
	• Face-to-face enrollment leveraging processes for physical documents • Remote enrollment leveraging smartphone readable security features or biometric databases	• Usability meets today's **citizen expectations** • No hardware deployment – leverages existing smart devices • **Interactive communication channel**	• User must **own a smartphone**
	• National biometric enrollment campaign	• **Universal issuance** • **No hardware** deployment	• **Central biometric database** may constitute security and privacy risks • Fingerprint and iris biometrics **require specific hardware** • **No offline** usage

South Africa – Leveraging on HANIS
ID verification for public sector

- **Fingerprint authentication for the government**

- **Success stories include**
  - **Curbing medical fraud in the Department of Health**
  - **Enabling Knowing Your Patient at Chris Hani Baragwaneth Hospital – 3rd biggest hospital in the world.**
  - **Eliminating ghost workers in Gauteng**

1

Enter your ID number in the app
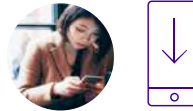
Create your Digital Identity

2

Take finger prints
Biometric verification against the Home Affairs database

Biometric verification

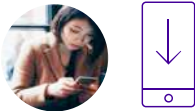IDEMIA | Public Security & Identity

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South Africa – Leveraging on HANIS
ID verification for private sector

- **Fingerprint or mobile authentication for private sector**
- **Useful for:**
  - **KYC applications such as FICA and RICA compliance**
  - **Digital consent for sensitive transactions**

1

Enter your data in the app or web site

Create your Digital Identity

2

Photograph ID or Passport
Document check against a document authentication service to determine confidence level of it being a true document

Document Authentication

3

Take a selfie photo incl. Liveness detection
Biometric verification against the document photograph and the Home Affairs database

Biometric verification

4

Consent vendor access to rich personal data
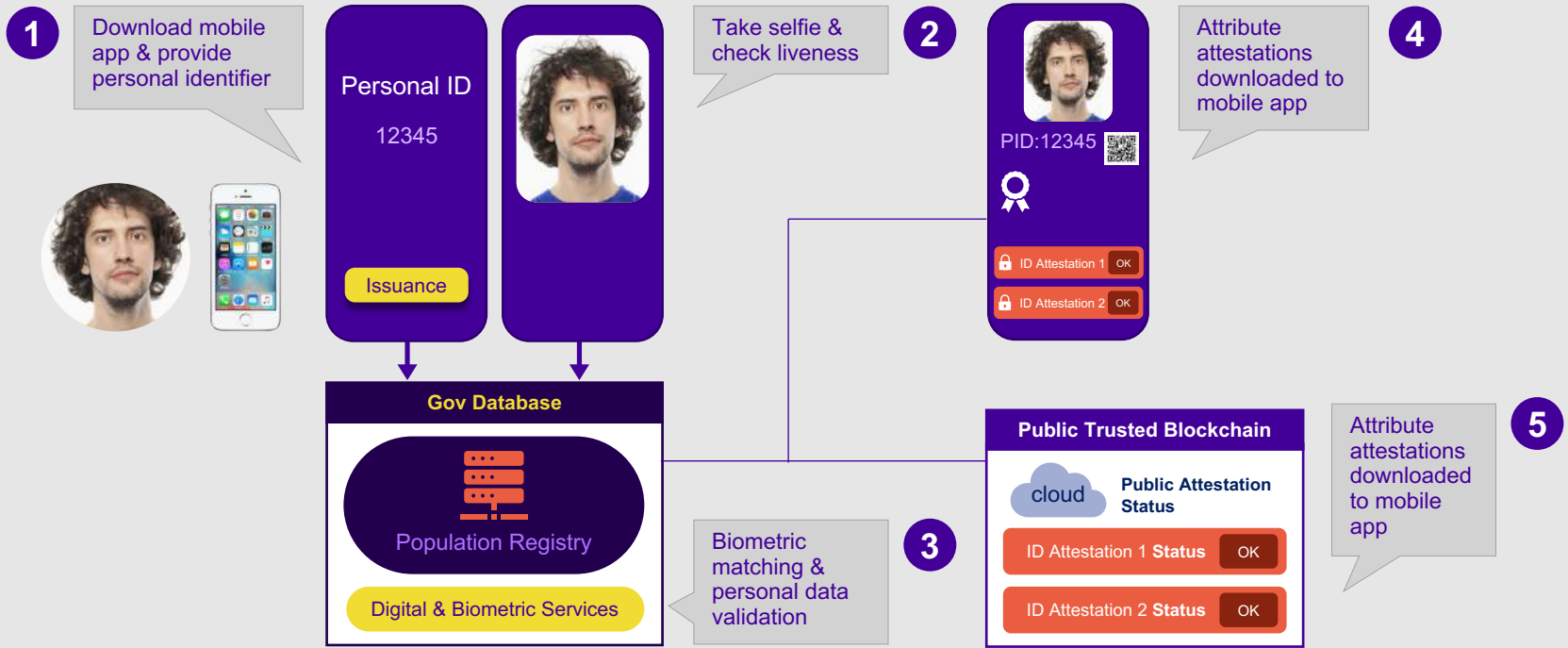Bank statements from source, proof of address from source, etc

Consent

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Demo

Screenshot of the demo

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Deep dive: example of USAGE sharing Identity attribute with third party

See Debora for animation

1 Website requests attributes

Website/ Use case

2 ID holder authenticates to authorize attribute sharing

3 Digital ID provides attribute attestations

PID:12345

Attestations

🔒 ID Attestation 1 — OK
🔒 ID Attestation 2 — OK

Gov Database

Population Registry

Digital & Biometric Services

Public Trusted Blockchain

cloud — **Public Attestation Status**

ID Attestation 1 **Status** — OK
ID Attestation 2 **Status** — OK

4 Website checks attestation status

Key take-aways

01 Central Registries: the ideal foundation for a national ID infrastructure

02 Use of biometrics to link citizens to their digital ID is essential

03 Digital ID should be built on security and privacy by design principles, as it will become critical national infrastructure

04 Digital ID extends the reach of key public and private sector services to wherever there is network coverage

05 Modern ID back-end systems support modern digital ID front-ends

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Thank You

Cédric Huet - Africa Digital ID VP sales

28 June 2019

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