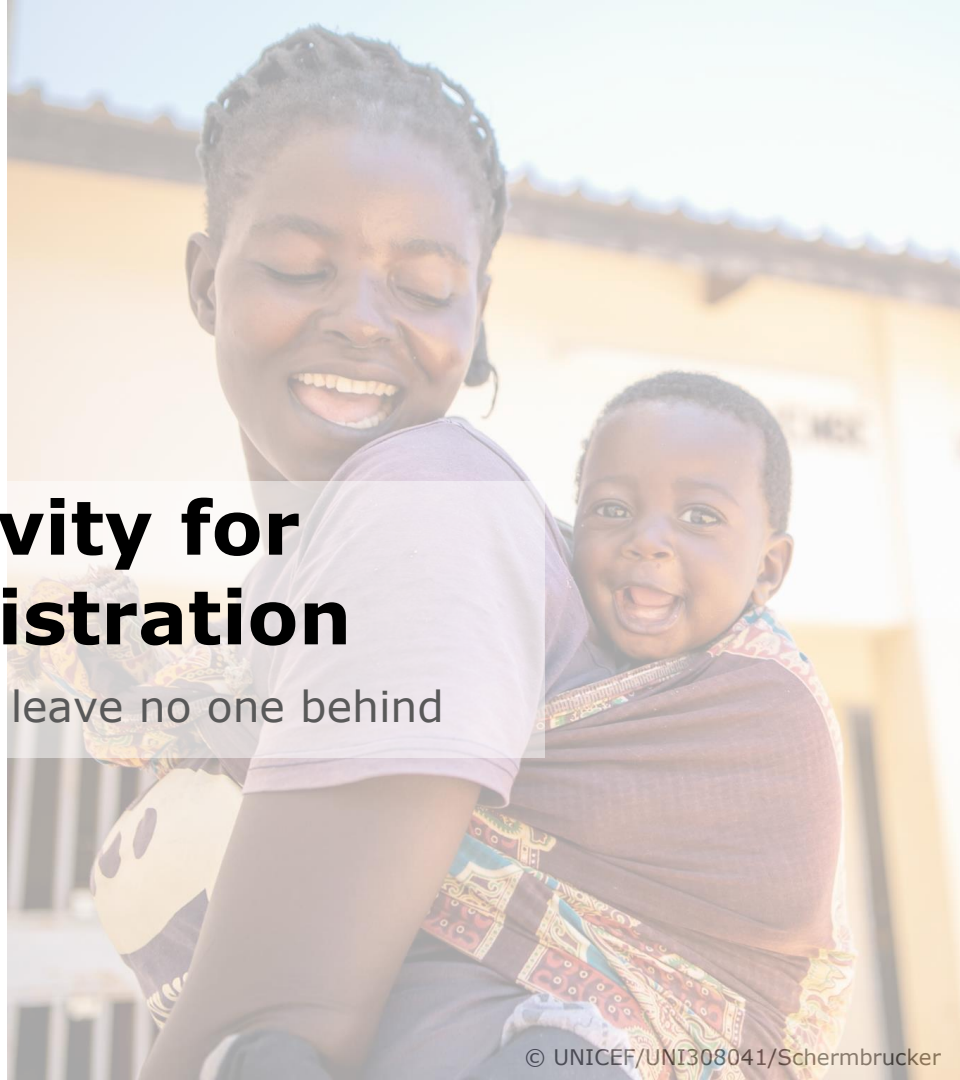




Augmented Connectivity for Augmented Civil Registration

Reach remote and isolated population to leave no one behind

ID4AFRICA – Livecast - March 9th, 2022



A major challenge in registering vital events

- **Digitalization of civil registration** is often a challenge in **rural areas** because of **lack of connectivity**.

Winning strategy

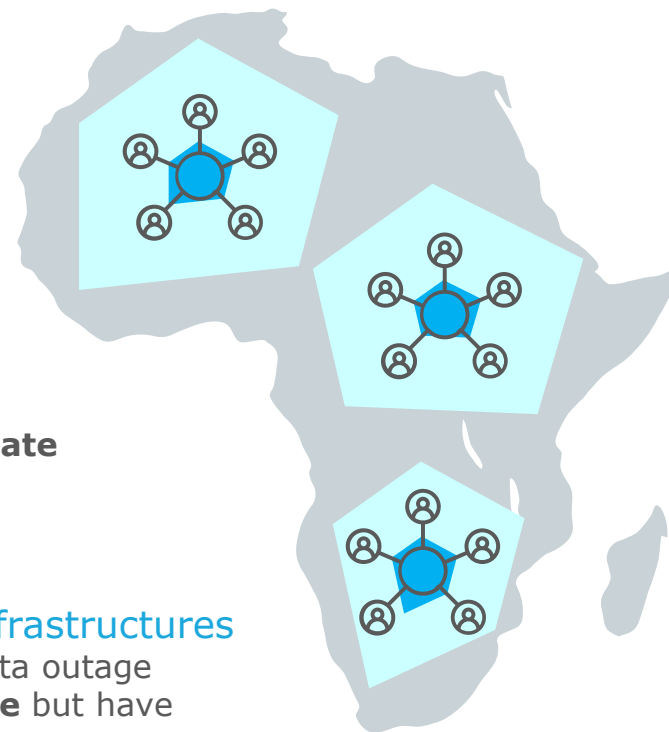
- Getting **digital registration closer to birth & death events** would **increase registration rates**

Improvement items

- **Multiplying number of registration places** would **facilitate access** to the population.
- **Being mobile** would allow to **reach out isolated people**

Solution: 'Augment' coverage by leveraging existing infrastructures

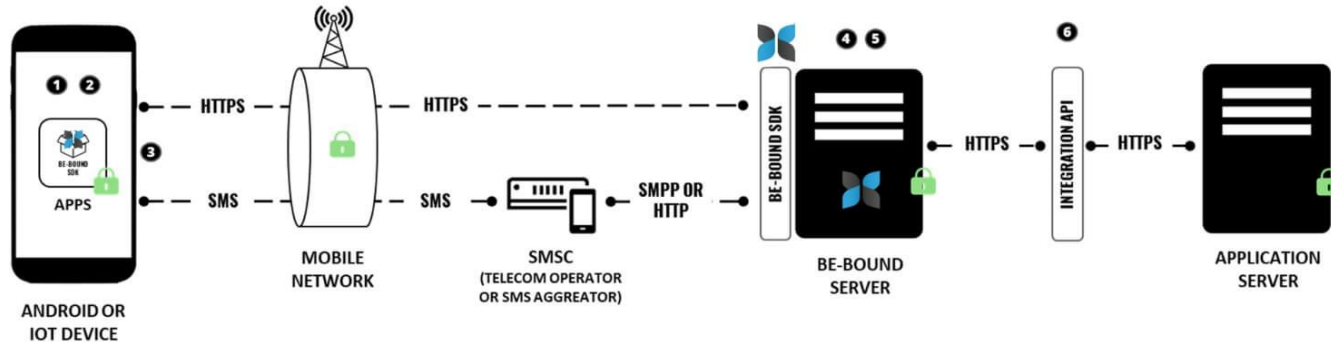
- Urban areas: **optimize data usage** and be **resilient** to data outage
- Rural/remote areas have **poor or absent 3G/4G coverage** but have **significant SMS coverage**



What is Be-Bound?

1

An **end-to-end** solution ensuring **augmented connectivity**



2

Connectivity optimization
on **any available networks**
(Wi-Fi, 4G, 3G, EDGE, GPRS, 2G, etc.)

3

Data usage optimization
thanks to **encoding & compression**

CONSUME LESS DATA ✓

Data compression is a combination of optimization, bit-accurate encoding, and data serialization

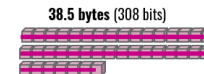
- Reduction of the protocol header
- Syntax reduction
- Bitwise encoding

ENSURE DATA SECURITY ✓

- Data level security (end-to-end)
- Security at the transport protocol level
- Security at the proxy level (on-premises)



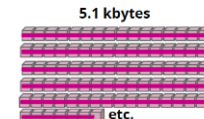
USER RECORD
(50 bytes:
firstname,
last name,
address, phone)



-23%



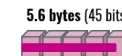
PHOTO
(ex. of ID
CARD of
308 kB)



-91%



2D GPS LOCATION
± 2.4m
precision
(8 bytes)



-30%



SPEED
[0.0 ... 160.0]
Km/h
(4 bytes)



-67%

| Why is it unique ?

(Differences with other SMS based solutions)

Current SMS based solutions

(TextIt or RapidPro)

- **Chatbot** principle
- **Simple interaction**
- **2 SMS** for each Q&A



Birth declaration

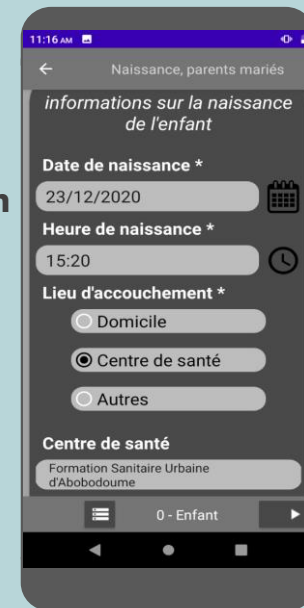
~**15 minutes** process

~**20 SMS**

Much longer than paperwork

Be. Bound

- **Mobile form** support
- Support **business rules**
- **Compression & encryption**
- Leverage **best network**
- Possible **non-text data**



Birth declaration

5-6 minutes process

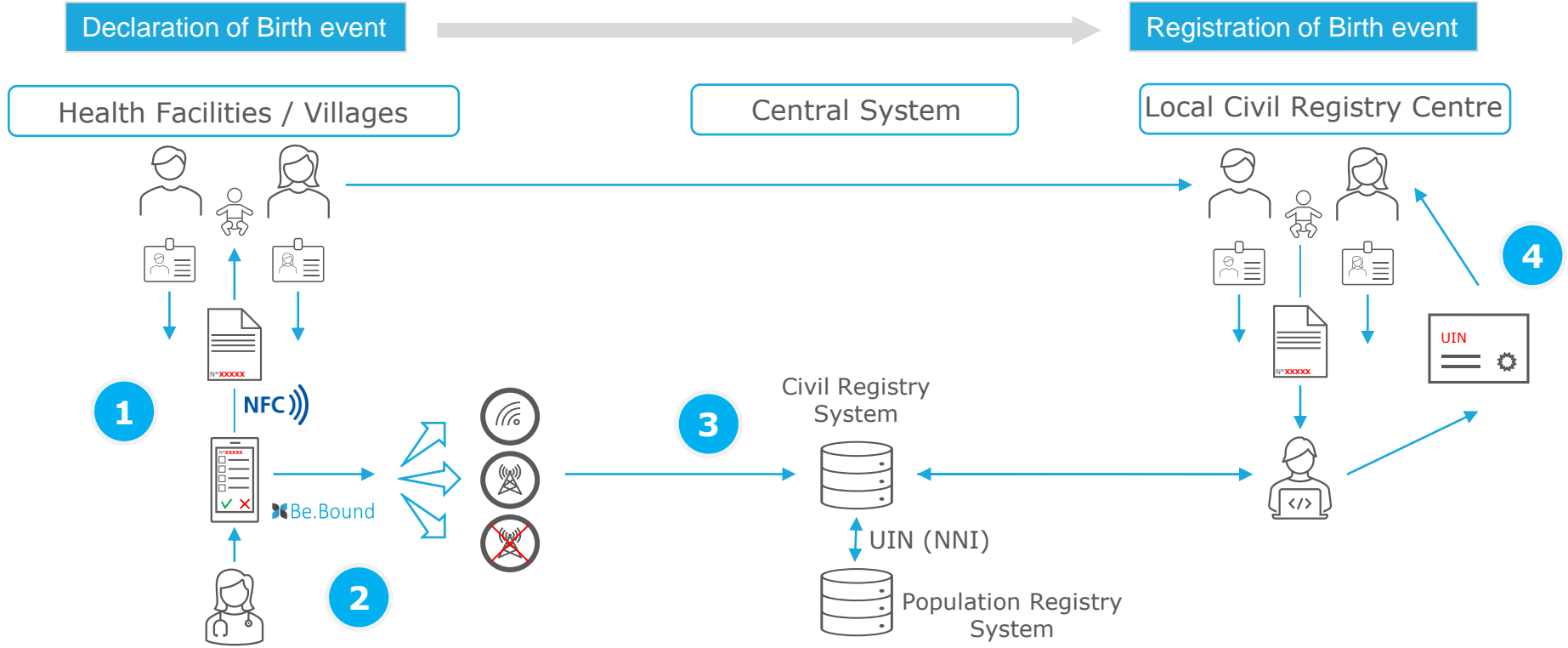
3-5 SMS



Replace paperwork efficiently



Real use case - Birth Registration via Mobile Platform in Ivory Coast



Platform adopted by Ivory Coast / ONECI

- **Process in operation ✓**
- **with National deployment on going (target = 15 000 mobiles)**



Be. Bound enable digital services now by bridging infrastructures gaps

Advantages

- Technology for **inclusion**
- Can run **complex business rules**
- **Immediate registration** of civil events
- **Live monitoring** of registration
- **Fraud prevention** on false declarations
- Access to **connected services** anywhere

Limitations

- Ideal for **asynchronous process**, require **patience for synchronous ones...**

Opportunities of use

- **Childhood and mother protection:** pregnancy, prenatal follow-up
- **Health care:** vaccination, patient follow-up
- **Identity:** registration supervision, online authentication
- **Social care:** data collection, benefits distribution logging
- **Education:** registration, internet access, live information, quizz



Digitech
Development

