



# Reimagining identity ecosystems in Sub-Saharan Africa with mobile

The case of Benin, Ghana, Kenya and Uganda

December 2020



### Digital Identity

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# Introduction

Africa's digital economy is fast expanding and the continent has made great strides in mobile connectivity. Most countries are putting strategies in place to take full advantage of the mobile revolution – to achieve national goals, the African Union's Agenda 2063 to transform Africa into a global powerhouse by 2063 and the United Nations Sustainable Development Goals (SDGs). However, there are challenges on this path, including the lack of legal or formal identity documents (ID).

This report provides an overview of the digital ID landscape in four Sub-Saharan African markets. It also explores the role of mobile in strengthening identity ecosystems, both by accelerating enrolment and facilitating remote verification of ID to access private or public services online.

For each of the four countries, the report:

- documents the identity ecosystem, digital ID strategy and use of IDs in service delivery;
- reviews the role of mobile, the status of connectivity and the SIM registration processes used to on-board customers;
- outlines the infrastructure and policy challenges facing stakeholders that may need to be addressed to create more effective digital ID systems or schemes; and
- examines what the advances in the digital ID ecosystem mean for the mobile industry, including the potential role of mobile network operators (MNOs) in building or strengthening existing digital ecosystems and shaping a common approach to digital identity in Sub-Saharan Africa and similar contexts.

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## Methodology and scope

The findings of the report are based on desk research of freely published and credible information from academic papers, news articles and reports by national authorities, regulators, multilateral agencies and government ministries. The report covers four

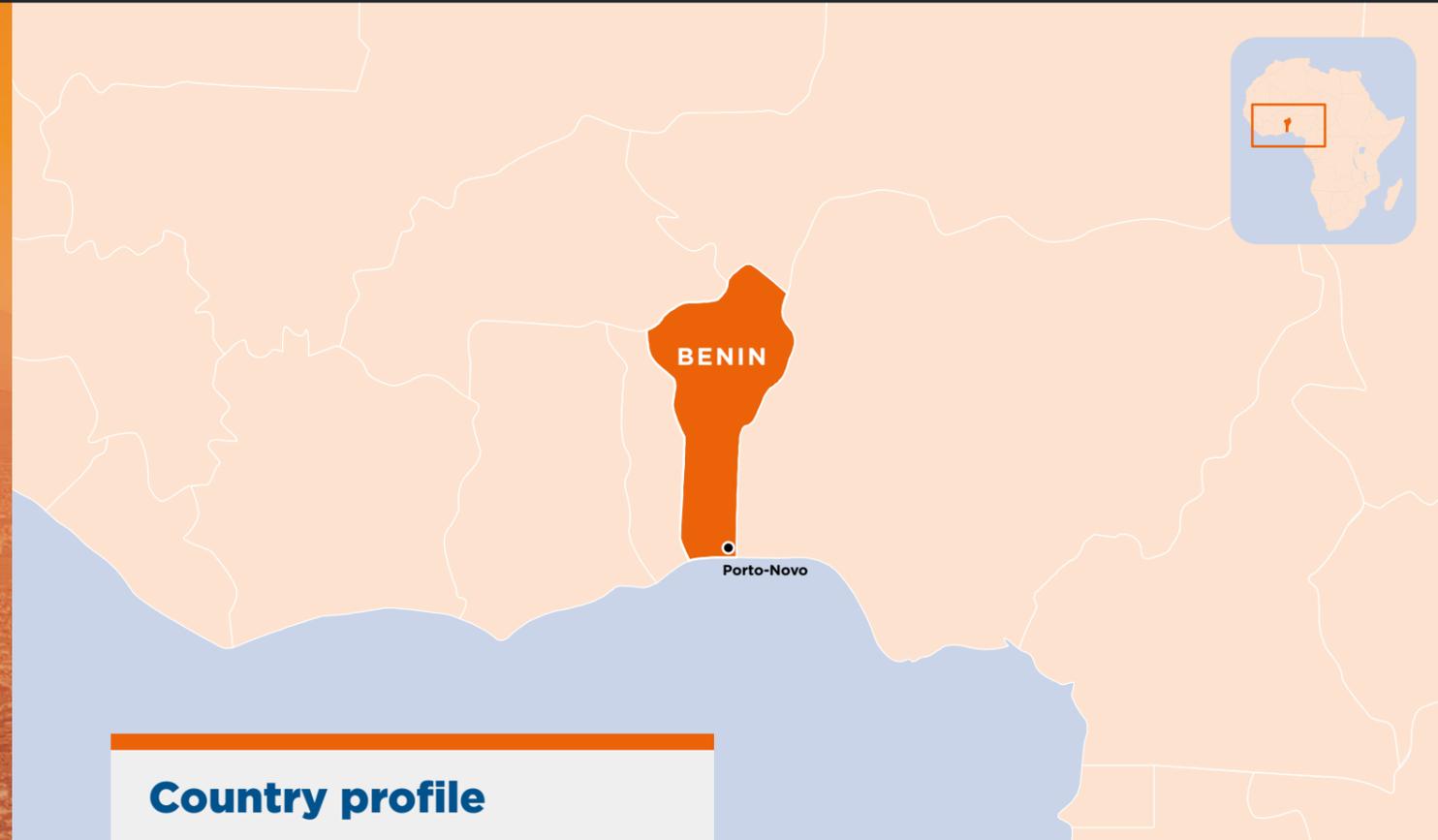
countries: Benin, Ghana, Kenya and Uganda. Between 2018–2020, these countries have either integrated existing ID systems or made the digitalisation of identities a priority in national economic policies and plans.

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**1**

**Benin**



**Country profile**

Benin, a member of the Economic Community of West African States (ECOWAS), is bordered by Nigeria, Togo, Burkina Faso and Niger. With a population of about 11.2 million people, Benin is a stable democracy with an economy heavily reliant on vibrant port activity and an agricultural sector buoyed largely by cotton production and the diversification of emerging exports, such as cashew nuts.<sup>1</sup> Despite steady growth over the past

decade, there has been limited growth in per capita terms. After accelerating to 6.7 per cent in 2018 from 5.8 per cent in 2017, Benin has a per capita GDP growth rate of just 3.8 per cent.<sup>2</sup> Spurred by the presence of two mobile network operators (MNOs), Moov (Maroc Telecom) and MTN, the total number of subscribers has increased rapidly, from 8.9 million in mid-2018 to approximately 9.97 million total mobile connections as of mid-2020.<sup>3</sup>



Population (2020)

**11.2M** (million)



GDP growth (2017)

**5.8%**



Numbr of MNOs

**2** Maroc Telecom  
MTN

GDP growth (2018)

**6.7%**

<sup>1</sup> World Bank (2019), *The World Bank in Benin*.  
<sup>2</sup> Ibid.  
<sup>3</sup> GSMA Intelligence (2020), "Benin Market Overview".

## The identity ecosystem

In Benin, civil registration has been ongoing since 1933, and birth registration, which is mandatory and free of charge within the first 10 days, has been practiced since 1960.<sup>4</sup>

**Mandatory free-of-charge birth registration in the first 10 days**



Fee after the 10-day window

**\$30**

However, cultural practices, such as naming a baby 10 days after birth, gives parents little time to visit an official registration centre and obtain a birth certificate. Access to registration centres is also difficult in rural and remote areas where new parents must pay a birth registration fee after the initial 10-day period, which was CFAF 18,353 (USD 30) at the end of 2017.<sup>5</sup> Since 1992, the Republic of Benin has issued national ID (NID) cards known as *carte d'identité*.<sup>6</sup> These mandatory, paper-based NIDs are issued to citizens who are at least 18 years old.<sup>7</sup>

Recognising the importance of identification, the Government of Benin has embarked on an initiative to issue a unique personal identifier (UPI) to drive the country's ambitious development programmes.<sup>8</sup> Although Benin already has a basic NID, in the second half of 2019, the government conducted sensitisation and advocacy around biometric cards.<sup>9</sup> Private sector players, notably MNOs and financial institutions, have expressed interest in biometric authentication services. To help facilitate this, the World Bank is supporting the Digital Rural Transformation Project to extend connectivity to areas not currently covered by mobile networks.<sup>10</sup> If rolled out, the cards would be targeted at the "poor and extreme poor" to ensure smooth access to public services. The biometric NID is also intended to facilitate travel within the ECOWAS region and remove residency permit requirements for citizens of ECOWAS member states. However, registration has been challenging, particularly in remote and hard-to-reach areas where there are not enough enrolment agents.<sup>11</sup>



Age requirement for a national ID

**18 years**

### ID and service delivery

Although a birth certificate is a requirement to register in school and access public and private services, such as healthcare, the state has not yet achieved 50 per cent birth registration.<sup>12</sup> In response, authorities in

Dogbo municipality, with the support of donor partners UNICEF and UNFPA, are collecting personal data to improve municipal and local development planning.<sup>13</sup> However, the identity gap in Benin creates obstacles

to participation in social, economic and political life.<sup>14</sup> Presentation and verification of personal identity documents are required to open a bank account in one's name, access healthcare, receive a pension payment, register in school or file a court petition. In addition, elections in Benin are conducted using a computerised voters' registry. As of March 2020, the registry was generated from the paper-based NID and

included the names of all citizens qualified to vote, as well as their photographs.<sup>15</sup>



Birth registration is still  
**Less than 50%**

**In Benin, Kea Medical's Hospital Information System, an MNO led initiative helping to create unique identities, was developed with the aim to connect hospitals in the country and eventually across Africa. This was done through a single database of patients' medical information. The universal medical identities for patients are linked to a mobile scannable QR code, enabling access to a patient's medical history in real-time, from any location.<sup>16</sup>**

### Digital ID strategy

Given the connection between identity and service delivery, the Government of Benin recognises the need to increase access to digital ID, and has made it a priority in its national development agenda.<sup>17</sup> In 2019, it expanded a national identification campaign, i.e. Recensement Administratif à Vocation d'Identification des Personnes (RAVIP),<sup>18</sup> and has reaffirmed its commitment to develop an ID scheme by putting the necessary infrastructure in place. Towards the end of 2019, the government procured approximately 350,000 biometric ID cards to issue to the poor and extreme poor in remote locations.<sup>19</sup> The envisaged outcome is the RAVIP card — an all-purpose ID validated to the standards of the ECOWAS. The RAVIP card is one component of Benin's Insurance for Human Capital Strengthening (ARCH) project,<sup>20</sup> which aims to distribute birth certificates to those who have registered for the RAVIP card, which is approximately 2.5 million people. Although the government is determined to improve the welfare of the Beninese by enabling citizens to access public and private services that require proof of identity, the biometric data registration exercise, which

began in 2019 with the procurement of biometric cards, has experienced challenges. There have been delays in installing data collection equipment and registration centres have been understaffed due to lack of funding.<sup>21</sup>

Benin is a focus country for the World Bank's West Africa Unique Identification for Regional Integration and Inclusion (WURI) programme. By the end of 2019, Benin had collected the biometric data of a substantial proportion of the country's population, but the WURI programme aims to link the civil registration system to human development and financial services<sup>22</sup> to facilitate the verification of people's identities and maintain an up-to-date repository of identity data that can support access to key private and public services and protect rights.<sup>23</sup> Although it may amount to an indirect tax passed on to consumers in the form of higher prices, the World Bank maintains that charging a fee for identity verification may incentivise identity providers to invest in modernising systems and reduce dependence on public budgets.<sup>24</sup>

<sup>4</sup> World Bank (2017), *The State of Identification Systems in Africa*.

<sup>5</sup> Ibid.

<sup>6</sup> World Privacy Forum (2017), *National IDs Around the World*.

<sup>7</sup> World Bank (2017), *The State of Identification Systems in Africa*.

<sup>8</sup> Agence pour le Développement du Numérique (2019), *A Look at Benin eID Experience*.

<sup>9</sup> ECOWAS (2019), *ECOWAS to conduct sensitization on national biometric identity card and the fight against trafficking in persons*.

<sup>10</sup> World Bank (2020), *West Africa Unique Identification for Regional Integration and Inclusion(WURI) Program - Phase 2*.

<sup>11</sup> Agence pour le Développement du Numérique (2019), *A Look at Benin eID Experience*.

<sup>12</sup> Houéto, D. et al. (2019), *Declaration and birth registration in Benin: a promising experience in Dogbo municipality*.

<sup>13</sup> Ibid.

<sup>14</sup> Agence pour le Développement du Numérique (2019), *A Look at Benin eID Experience*.

<sup>15</sup> World Bank (2017), *The State of Identification Systems in Africa*.

<sup>16</sup> GSMA (2016), *Birth Registration in Tanzania: Tigo's support of the new mobile birth registration system*.

<sup>17</sup> Development Initiatives (2018), *the P20 Initiative - data to leave no one behind in Benin*.

<sup>18</sup> Benin TV (2019), *Biometric cards from the RAVIP will be available from next July*.

<sup>19</sup> Biometric Update (2019), *Digital ID in Africa this week: biometric bank cards, birth registrations up, ePassport problems*.

<sup>20</sup> World Bank (2020), *West Africa Unique Identification for Regional Integration and Inclusion(WURI) Program - Phase 2*.

<sup>21</sup> Agence pour le Développement du Numérique (2019), *A Look at Benin eID Experience*.

<sup>22</sup> World Bank (2020), *West Africa Unique Identification for Regional Integration and Inclusion(WURI) Program - Phase 2*.

<sup>23</sup> African Union (2019), *Fifth Conference on African Ministers Responsible for Civil Registration*.

<sup>24</sup> World Bank (2019), *Identity Authentication and Verification Fees: Overview of Current Practices*.

## Policy frameworks

### Institutional environment

Although several non-governmental bodies have been supporting the government to strengthen its identification schemes, Benin's Ministry of Interior and Public Security is solely responsible for civil registration.<sup>25</sup> The Prefecture of the Mayor is responsible for issuing national IDs (NIDs),<sup>26</sup> while UNICEF, USAID, UNFPA and Plan International Benin have been working together to support government initiatives to increase birth registration.<sup>27</sup> As a member of ECOWAS, Benin attempts to align its national priorities with those of the regional economic community (REC),<sup>28</sup> a target of the World Bank's WURI programme. To keep digital ID high on the government agenda, a steering committee of experts within the Office of the Presidency has been

appointed<sup>29</sup> that convenes key ID stakeholders to guide the country's digital identity strategy. The Ministry of Digital Economy and Communication is spearheading the Smart Africa Trust Alliance's (SATA) Digital Identity initiative,<sup>30</sup> which aims to create digital IDs and support the broader mission of creating a single digital market for Africa. This continental concept of digital identity aims to establish institutional ownership, combined with a trust framework based on standards and trust-assurance mechanisms, to facilitate cross-border interactions.<sup>31</sup> In mid-2020, the Republic of Benin was identified as one of three countries, along with Rwanda and Tunisia, to host a pilot proof of concept for the SATA digital ID project.

### Legal environment

As governments strive to build digital identity databases, personal privacy rights are inevitably affected. In recognition of the need to protect the personal data of Benin's citizens, in 2009 the government adopted the Law on the Protection of Personal Data, *Loi Portant Protection des Données à Caractère Personnel*.<sup>32</sup> The legislation outlined the standards to be applied in protecting personal data and established a data protection agency, the *Commission Nationale de l'Informatique et des Libertés*. This has served to validate the process, the identity database itself and the use of biometric data.<sup>33</sup> In 2018, Benin revised the 2009 legal framework on data protection

and created a unified legal framework, the Benin Digital Code or *le Code du Numérique du Bénin*,<sup>34</sup> bringing e-ID, e-signatures, trust services providers, e-commerce and cybercrime under one umbrella.



Year Benin's data protection law was revised

# 2018

As a member of ECOWAS, Benin will ensure its biometric ID card is interoperable with the ID-related systems of other member countries and is compliant with the ECOWAS biometric ID project, which harmonises regulatory frameworks on identification in the region and attempts to standardise e-ID to facilitate the movement of more than 350 million citizens in the ECOWAS region.<sup>35</sup>



Population impacted by ECOWAS biometric ID project (which the Benin Digital ID project is a part of)

Over  
**350M**

## Role of mobile

### SIM registration model

As of the end of 2019, mobile users in approximately 155 countries are required to supply proof of identification to activate mobile SIM-enabled services.<sup>36</sup>

In Benin, prior to activating a SIM card, MNOs are required to capture and share the SIM user's personal data with the government or regulator, rather than provide it on demand.<sup>37</sup> Since SIM registration allows regulators to establish the identity of the owner of a SIM card, users are asked to provide personal data, often contained in a valid ID. In low and middle-income countries (LMICs), SIM card registration is critical to access SIM-enabled trust-linked services, such as financial products.<sup>38</sup> The SIM card registration process, which is largely paper-based, is a slow and bureaucratic exercise, but a necessary one to meet Know Your Customer (KYC) legal requirements and comply with industry regulations.<sup>39</sup>



Countries that mandate SIM registration (2020)

# 155

<sup>25</sup> UNICEF (2015), *Legal Framework for Birth Registration - Benin*.

<sup>26</sup> World Bank (2017), *The State of Identification Systems in Africa*.

<sup>27</sup> Ibid.

<sup>28</sup> World Bank (2020), *West Africa Unique Identification for Regional Integration and Inclusion(WURI) Program - Phase 2*.

<sup>29</sup> World Bank (2018), *Community and Local Government Basic Social Services Project - Benin*.

<sup>30</sup> Tralac (2019), *Kagame makes case for African digital identity*.

<sup>31</sup> Smart Africa (2020), *RFP for Implementing an Interoperable Digital ID Pilot in 3 Smart Africa Member States*.

<sup>32</sup> African Law and Business (2019), *Data Protection in Benin*.

<sup>33</sup> World Bank (2017), *The State of Identification Systems in Africa*.

<sup>34</sup> African Law and Business (2019), *Data Protection in Benin*.

<sup>35</sup> Agence pour le Développement du Numérique (2019), *A Look at Benin eID Experience*.

<sup>36</sup> GSMA Digital Identity (2020), *Access to Mobile Services and Proof of Identity 2020*.

<sup>37</sup> Ibid.

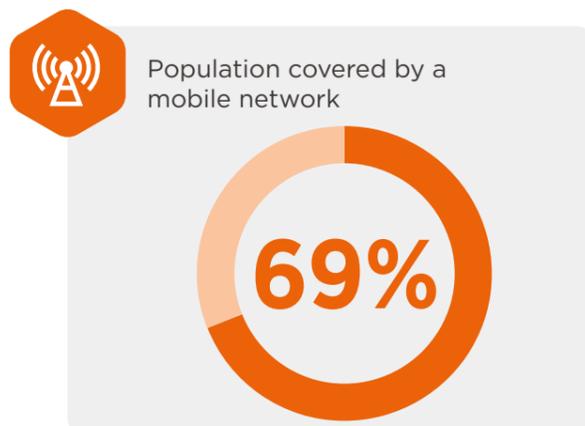
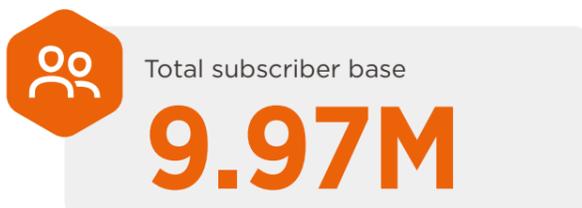
<sup>38</sup> Privacy International (2020), *101 Sim Card Registration*.

<sup>39</sup> Privacy International (2019), *Timeline for SIM Card Registration Laws*.



Status of connectivity and digital ID

Benin has two MNOs, MTN and Moov (Maroc Telecom), and the market is regulated by Autorité de Régulation des Communications Electroniques et de la Poste (ARCEP). As of mid-2020, Benin had a total unique subscriber base of 9.97 million, 96 per cent of which are prepaid customers. Network coverage by population is 68.58 per cent.<sup>40</sup>



If designed effectively, the government could partner with MNOs to play a number of roles in Benin's identity ecosystem. For example, the government could leverage the reach of MTN's and Moov's (Maroc Telecom) vast agent networks to enrol residents in remote and hard-to reach areas for government IDs, while MNOs could help drive consumer demand for

official proof of ID. MTN and Moov could also leverage business assets, such as secure customer databases, to help the government ID agency improve access to foundational IDs, provide reliable platforms for identity verification and unlock access to a wealth of digital or online services for underserved populations.<sup>41</sup>

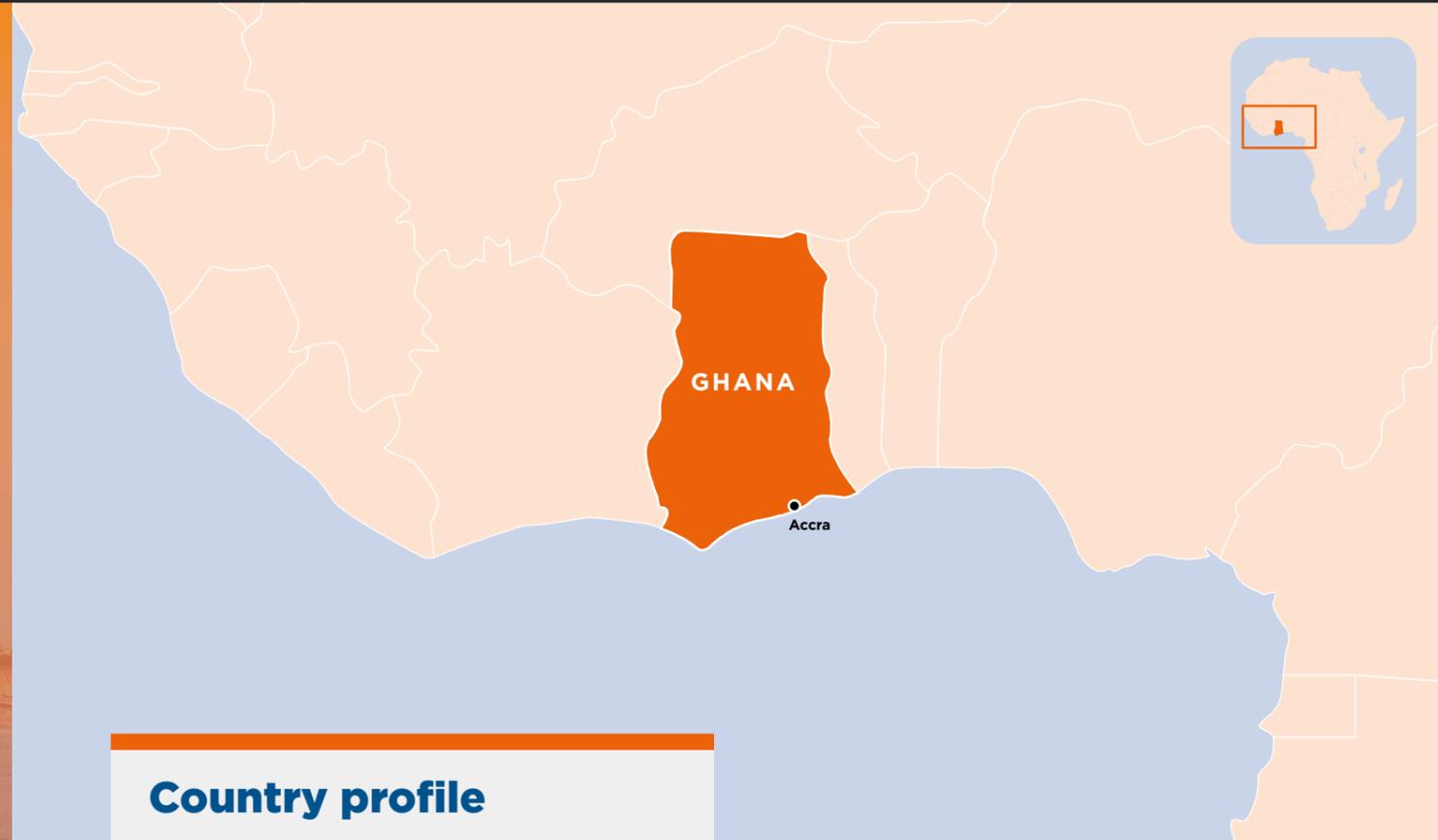


<sup>40</sup> GSMA Intelligence (2020), "Benin Market Overview".  
<sup>41</sup> GSMA (2020), Digital Identity Programme: Insights and Achievements (2016-2020).



# 2

## Ghana



### Country profile

Ghana has a population of approximately 31 million and borders Burkina Faso, Togo and Côte d'Ivoire. With an estimated GDP growth of 6.7 per cent, Ghana's economy was projected to expand in the first half of 2020.<sup>42</sup>



Population (2019)

**31M**



GDP growth (2019)

**6.7%**

Although estimates were issued prior to the COVID-19 pandemic, which has disrupted economies worldwide, Ghana's relatively high rate of growth is driven by the service sector, which grew by 7.2 per cent in 2019 compared with just 1.2 per cent in 2018.<sup>43</sup> Ghana has several MNOs, but MTN and Airtel Tigo are the major market players. As of mid-2020, there were 17.3 million unique mobile subscribers in the country.<sup>44</sup>



Number of major MNOs

**2** MTN  
Airtel Tigo



Service sector growth (2018)

**1.2%**



Number of unique mobile subscribers (2020)

**17.3M**

Service sector growth (2019)

**6.7%**

<sup>42</sup> World Bank (2019), *The World Bank in Ghana: Overview*.

<sup>43</sup> *Ibid.*

<sup>44</sup> GSMA Intelligence (2017), *Country Overview: Ghana*.

## The identity ecosystem

Registration of vital statistics began in Ghana in 1888 and is regulated by the Cemeteries Ordinance. In 1912, the Births, Deaths and Burials Ordinance was enacted to replace the law of 1888. In 1965, the Registration of Births and Deaths Act was passed to ensure mandatory universal registration of births and deaths in Ghana.<sup>45</sup>



Vital statistics have been considered reliable for demographic estimates to inform policy formulation at various levels of development planning. While birth registration in Ghana stands at around 70 per cent, more people in urban areas register their births than those in rural areas.<sup>46</sup> Major challenges<sup>47</sup> include limited access or long travel distances to government registration facilities, low awareness of the importance of birth registration, relatively low levels of investment in digital data capture infrastructure, inadequate funding for the registry and lack of requisite statistical software.

There are often insufficient resources to support the birth registration process, such as paper for printing birth certificates. To address this challenge and make birth registration more efficient, the Government of Ghana has been piloting mobile birth registration systems since 2016.<sup>48</sup> Community health campaigns and mobile registration initiatives have increased birth registration rates by reducing the indirect costs of birth registration and engaging more community volunteers, especially in poorer and rural communities.<sup>49</sup> Ghana also has an integrated one-stop portal for requesting e-services, registering births and submitting national ID applications online.<sup>50</sup>



<sup>45</sup> Health Metrics Network/World Health Organization (2009), Ghana: Country Experiences in Civil Registration Systems Development.

<sup>46</sup> UNICEF (2020), Birth registration: UNICEF works with partners in Ghana to ensure that every child has an identity.

<sup>47</sup> Development Initiatives (2019), Measuring the State of Civil Registration and Legal Identity.

<sup>48</sup> UNICEF (2020), Birth registration: UNICEF works with partners in Ghana to ensure that every child has an identity.

<sup>49</sup> Ibid.

<sup>50</sup> Osei-Kojo, A. (2016), E-government and public service quality in Ghana.

In 2006, Act 707 established the National Identification Authority (NIA) as the sole authority responsible for enrolment and issuance of national ID cards in Ghana. Every resident of Ghana aged 15 and over is required to obtain a national ID. The National Identification Authority (NIA) is required to establish a biometric-based national ID registry, which has involved developing databases, communications networks and a secure card production system. Ultimately, stakeholder institutions and the NIA will be able to exchange data under legally defined data security and privacy frameworks. The roll out of the biometric national ID system provides the supporting infrastructure for citizens to access public and private sector services.<sup>51</sup> Considering that at the end of 2017, approximately 22 per cent of Ghanaians identified lack of documentation as the reason for not having a financial account,<sup>52</sup> a national biometric ID registry promises to provide a unified approach to identification and open access to financial services and other identity-linked services.



Registering for the new biometric card has not been without challenges. People have had to travel long distances and sleep overnight at registration centres to beat long queues, data capture systems have broken down and the quality of mobile networks has been poor.<sup>53</sup>

### ID and service delivery

Financial inclusion and the efficient delivery of public services both depend on accurate authentication of identity.<sup>54</sup> Section 18 of Act 707, which established the NIA, provides for regulations that promote the use of national ID cards to support social, political and economic participation. Attendant regulations provide for the mandatory use of national ID cards for civil and administrative activities and transactions with the

government. As of mid-2020, the NIA plans to upgrade existing ID systems to accommodate institutional identity service requirements<sup>55</sup> and harmonise all ID schemes in the country.<sup>56</sup> Extending digital verification and authentication capabilities would help bring many Ghanaians into the digital economy and enable ID-linked service providers, such as financial institutions, to accurately verify the identities of their customers.<sup>57</sup>

In 2015, Tigo, an MNO in Ghana, partnered with UNICEF and Ghana's Births and Deaths Registry to develop a new automated birth registration system, called mBirth. As an operator working in the country, Tigo has vast coverage across Ghana and has showcased how mobile technology can be leveraged to transform lives, especially in the hard-to-reach and far-flung areas.<sup>58</sup>

<sup>51</sup> World Bank (2019), Enhancing Financial Inclusion – Africa Region.

<sup>52</sup> World Bank (2017), Global Findex Database 2017.

<sup>53</sup> Abbey, E.E. and Koomson, J.B. (13 May 2019), "Challenges rock Ghana card registration", Graphic Online.

<sup>54</sup> ITU (2016), Review of National Identity Programs.

<sup>55</sup> Ghana National Identity Authority (2020), Press release by the Executive Secretary.

<sup>56</sup> World Bank (2017), The State of Identification Systems in Africa.

<sup>57</sup> Finextra (9 December 2019), Trulioo opens Global Gateway to Nigeria and Ghana.

<sup>58</sup> GSMA (2016), Birth Registration in Tanzania: Tigo's support of the new mobile birth registration system.

## Digital ID strategy

For over a decade, Ghana has had no less than six biometric databases: the national ID card, passports, national health insurance data, driver's licences and voter rolls.<sup>59</sup>



Number of biometric databases in the country

Not less than **6**



Year the government recognised the need to harmonise personal databases

**2017**

Ghana's ID databases have been operating in silos. In 2017, the Government of Ghana recognised the need to centralise and harmonise the ID schemes,<sup>60</sup> and embarked on a major project to overhaul the Ghana Card. The new Ghana Card has been hailed by the credit-scoring industry as an attempt to strengthen the credibility of private borrowers and lower interest rates.<sup>61</sup> The new Ghana Card is envisaged as a primary registration document, and the database as a central data repository for authenticating personal credentials. The government is considering making the new Ghana Card mandatory to access government and private services, such as passport applications, opening a bank account, property registration and obtaining education certificates.<sup>62</sup> While Article 42 of the 1992 Constitution states who a voter is, this has not been easy to determine,<sup>63</sup> and the Parliament of Ghana passed subsidiary legislation in mid-2020 that

makes the Ghana Card and the Ghanaian passport the only legal identification documents to be accepted for the new biometric electoral voters' registry.<sup>64</sup>

As of mid-2020, the NIA is considering a separate arrangement for eligible foreigners to register under the Foreigners Identity Management System (FIMS), which would reduce duplication in the registration system.<sup>65</sup>



Year the Ghana Card and Ghana passport became the only legal IDs for participation in elections

**2020**

<sup>59</sup> Boateng, V. (2017), e-ID: The Key for a Successful eGovernment Implementation.

<sup>60</sup> Kayser-Bril, N. (2019), Identity-management and citizen scoring in Ghana, Rwanda, Tunisia, Uganda, Zimbabwe and China.

<sup>61</sup> UNCTAD (2017), Intergovernmental Group of Experts on E-Commerce and the Digital Economy, First session.

<sup>62</sup> Digital Watch (19 May 2019), Ghana mass registration for digital national identification ongoing.

<sup>63</sup> Robert-Nicoud, N.R. (2020), Who decides who gets to vote in Ghana's elections?

<sup>64</sup> Ghana Web (11 June 2020), Rejecting birth cert while accepting Ghana card, passport is not double standards - MP.

<sup>65</sup> Ghana National Identity Authority (2020), Press release by the Executive Secretary.

## Policy frameworks

### Institutional environment

The Births and Deaths Registry is the government agency responsible for civil registration in Ghana. In 2006, Act 707 established the National Identification Authority (NIA) as the sole authority responsible for enrolment and issuance of national identity cards in Ghana. The agency implements this significant

project through a public-private partnership with the subsidiaries of Margins ID Group, Intelligent Card Production Systems (ICPS) and Identity Management Systems (IMS).<sup>66</sup> The ECOWAS secretariat and the World Bank have also provided technical assistance to the NIA.<sup>67</sup>

### Legal environment

The Births and Deaths Registry was established under the Registration of Births and Deaths Act of 1965 (Act 301). The law criminalises double registration for the Ghana Card, making it an offense under section 40 of the National Identity Register Act, 2008 (Act 750). Although numerous attempts have been made to develop a modern digital identity framework, access to identity systems and services remains low and fragmented.<sup>68</sup> Thus, Regulation 7 of L.I. 2111 provides for the mandatory use of national ID cards for various civil and administrative processes and transactions. This is expected to fuel demand for formal proof of ID among both citizens and non-citizens.

The Data Protection Act of 2012 (Act 843) created the Data Protection Commission Ghana, an independent statutory body created to protect the privacy of individuals and personal data by regulating the processing of personal information.<sup>69</sup>

The law has enhanced confidence in Ghana's ID systems, which has stocks of facial images, fingerprints and iris scans that were collected to produce the new Ghana Card. Prior to the law, residents had doubts about digital ID systems and expressed concern about their potential risks.<sup>70</sup>



Year the Data Protection Commission was created

**2012**

<sup>66</sup> Baiden Jr, Moses (28 November 2018), "Electronic identification cards herald a digital future for Ghana", European CEO.

<sup>67</sup> World Bank (2017), Brief on Digital Identity.

<sup>68</sup> Cision PRWeb (9 December 2019), Trulioo Extends Identity Verification Coverage in Africa to Nigeria and Ghana.

<sup>69</sup> Republic of Ghana, Ministry of Communications (2012), Data Protection Commission (DPC).

<sup>70</sup> Privacy International (2020), 2020 is a crucial year to fight for data protection in Africa.

## Role of mobile

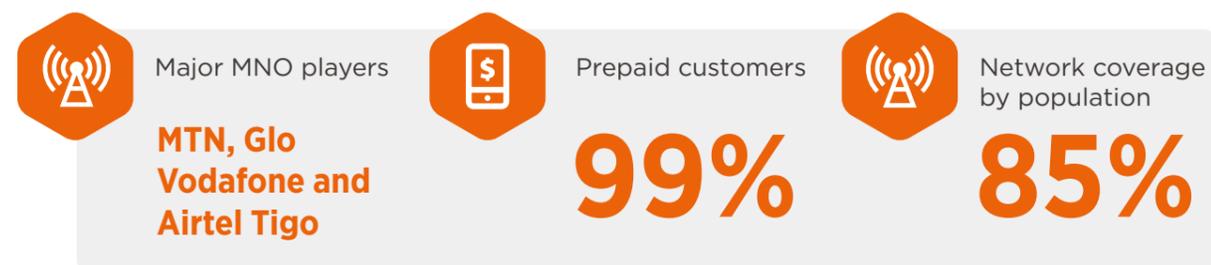
### SIM registration model

As of the end of 2019, mobile users in approximately 155 countries are required to prove their identity for MNOs to activate SIM-enabled services. In Ghana, prior to activating a SIM card, MNOs are required to capture and store personally identifiable data about the SIM user.<sup>71</sup> In the latter half of 2019, the Ministry of

Communications (MoC) noted several deficiencies with the existing SIM card registration regime and issued a notice to all players in the SIM registration value chain to implement strict compliance mechanisms in the SIM activation process in line with the relevant provisions of the law.<sup>72</sup>

### Status of connectivity and digital ID

Ghana has several MNOs, but the major players are MTN, Glo, Vodafone and Airtel Tigo. The National Communications Authority (NCA) regulates the market and, as of mid-2020, 99 per cent of Ghana's total subscriber base have prepaid subscriptions. Network coverage by population is 85 per cent.<sup>73</sup>



Since the Ghanaian government is continuing to expand the national digital ID system,<sup>74</sup> an increasing number of people are expected to register mobile SIMs in their own names. While this supports compliance with mandatory SIM registration requirements, it also presents MNOs with a unique opportunity to offer robust digital identity verification solutions and unlock access to several life-enhancing services. For instance, Ghana's Airtel Tigo's mBirth programme is a mobile-enabled digital identity service based on a partnership between the mobile sector and the government<sup>75</sup> that expands access to proof of identity, helps individuals exercise a fundamental human right<sup>76</sup> and meets

SDG target 16.9 — legal identity for all, including birth registration, by 2030 — which is key to advancing the 2030 Agenda.<sup>77</sup>

To cut operational costs and ensure real-time verification of personal data while digital IDs and registration systems are being created, the vast agent networks and business assets of MTN, Glo, Vodafone and Airtel Tigo can be leveraged to support NIA-managed Mobile Registration Workstation (MRW) operators. These are the stations where the biometric data of applicants is captured and merged with other personal information to create a digital identity.<sup>78</sup>



71 GSMA (2020), *Access to Mobile Services and Proof of Identity 2020*.

72 Republic of Ghana, Ministry of Communications (2019), *Press Release on SIM Registration*.

73 GSMA Intelligence (2020), "Benin Market Overview".

74 GSMA (2017), *Country overview: Ghana - Driving mobile-enabled digital transformation*.

75 GSMA (2020), *Mobile Birth Registration in Sub-Saharan Africa: A Case Study of Orange Senegal and Uganda Telecom Solutions*.

76 McCombs, T. and González, J.S. (2007), *Right to Identity*.

77 Viala, V. (18 June 2019), "Why is having a Legal Identity fundamental to Human Rights?", *Thales Digital Identity & Security Blog*.

78 Ghana National Identity Authority (2020), *Press release by the Executive Secretary*.



3

# Kenya



## Country profile

Kenya, a member of the East African Community (EAC), is bordered by Uganda, Somalia, Ethiopia, South Sudan and Tanzania. It has a population of approximately 47.5 million<sup>79</sup> and is the fourth largest economy in Sub-Saharan Africa.<sup>80</sup> While the agricultural sector is a major employer in Kenya, the service industry is a major economic driver.<sup>81</sup> Before COVID-19, Kenya's real GDP growth was projected to rise to 5.9 per cent in 2020 from 5.7 per cent in 2019.<sup>82</sup> As of mid-2020, this stood

at around 1.5 per cent and could contract to 1.0 per cent if COVID-19-related disruptions persist to the end of 2020.<sup>83</sup> Kenya has three MNOs with approximately 52.9 million mobile connections,<sup>84</sup> and Safaricom's M-PESA has made Kenya a global leader in mobile money services. Regulated by the Communications Authority of Kenya (CA), other major players in the mobile market are Telkom and Airtel. As of mid-2020, 96 per cent of the population had mobile coverage.<sup>85</sup>

**Country population: 47.5m**      **GDP growth in 2019: 5.7%**

Number of MNOs      Unique mobile connections      Network coverage by population

**3 Safaricom  
Airtel and orange**      **52.9M**      **96%**

<sup>79</sup> Kenya National Bureau of Statistics (2019), 2019 Kenya Population and Housing Census Results.  
<sup>80</sup> World Bank (2017), World Development Indicators 2017.  
<sup>81</sup> Navarra Centre for International Development (2018), Kenya Country Report.  
<sup>82</sup> World Bank (8 April 2019), Kenya's Economic Outlook Remains Stable Amid Threats of Drought in 2019.  
<sup>83</sup> World Bank (2020), COVID-19 Dampens Kenya's Economic Outlook as Government Scales up Safety Net Measures.  
<sup>84</sup> GSMA Intelligence (2020), "Market Overview in Benin", Region in Focus: Sub-Saharan Africa.  
<sup>85</sup> GSMA Intelligence (2020), "Market Overview in Ghana", Region in Focus: Sub-Saharan Africa.

## The identity ecosystem

Births have been documented in Kenya since 1904. The Birth and Deaths Registration Act CAP 149 stipulates that a birth must be registered within three months.<sup>86</sup> This is mandatory and local sub-chiefs are responsible for registration at the village level. The local registration of births office assigns each registered child a unique birth registration number.<sup>87</sup>

**Births have been documented since 1904**



Mandatory birth registration within  
**3 months**

Kenya's Ministry of Health uses an innovative mobile-enabled technology to improve the efficiency of civil registration and vital statistics (CRVS).<sup>88</sup> The Ministry also leads the Monitoring of Vital Events through Information Technology (MOVE-IT) programme, which enables community health workers to use mobile devices to report births and deaths.<sup>89</sup> Kenya's national ID card, which does not expire, is mandatory for all citizens over the age of 18. Registration for the ID card is on-going, and ID coverage is higher in urban areas than in rural and remote regions.

Although the national ID is the most-used form of identification in the country, Kenyans also hold other identity documents or cards, including the National Hospital Insurance Fund (NHIF) card, National Social Security Fund (NSSF) card, a passport and the electoral voter's card. The Independent Electoral and Boundaries Commission (IEBC) uses its own biometric system to register and authenticate voters against master voter lists. The government also maintains an Integrated Population Registration System (IPRS),<sup>90</sup> which stores population data about Kenyan residents, both citizens and non-citizens. The database pulls data from a variety of sources, including civil registration, birth registration and refugee registration. While the data is not completely integrated, the IPRS assigns a unique identifier to each individual's record, which makes it possible to provide data verification services to public and private service providers and improve the efficiency of service delivery.



Age requirement for a national ID

**18 years**

<sup>86</sup> Kenya Law (1963), *Laws of Kenya: Births and Deaths Registration*.

<sup>87</sup> Ibid.

<sup>88</sup> Republic of Kenya Ministry of Health (2019), *Kenya Verbal Autopsy Standards & Guidelines*.

<sup>89</sup> World Health Organisation (2013), *Move It: Report on Monitoring Vital Events Using Information Technology*.

<sup>90</sup> Ministry of Interior and Co-Ordination of National Government (2018), *IPRS*.

### ID and service delivery

Kenya's private sector and state-run ID schemes have a symbiotic relationship. Like public sector service providers, the private sector uses the IPRS to verify personal data for KYC and anti-money laundering (AML) regulatory requirements. The Central Bank of Kenya (CBK) and Financial Reporting Centre (FRC) oversee these regulations, giving the state some control over how service providers verify residents' personal data. Since 2008, a child who does not have a birth certificate can be blocked from accessing health and educational services or from their rightful inheritance. However, the government has undertaken an ambitious digital registration exercise that seeks to give everyone a unique digital identity. Having passed the Data Protection Law in November 2019, the government is operationalising the attendant

regulatory frameworks for residents to acquire a Huduma Namba, Swahili for service number. As of mid-2020, Kenya's Huduma Bill, a statute intended to provide firm legal backing for the Huduma Namba, is under public consultation. Although Kenyans have yet to be issued digital Huduma Namba cards, which they can use to access all government services, plastic national ID cards are still in use.



Year Kenya passed a data protection law

**2019**

**In Kenya, since 2019, the GSMA has been supporting a local MNO to explore and develop a digital health ID platform. The initiative aims to leverage MNO's KYC data to enable patients to access portable medical records on one secure platform.<sup>91</sup> For the MNO, the value-added opportunities could include the development of a full-service health app, access to financial services such as microloans or bill payments.**



## Digital ID strategy

Since 2009, a variety of efforts have been made to consolidate Kenya's multiple ID systems and schemes via the IPRS, which the Government of Kenya describes as "a single source of truth on identity".<sup>91</sup> Eleven years later, this initiative is far from complete. In early 2019, the state began registering people in a new register, the National Integrated Identity Management System (NIIMS) or Huduma Namba.<sup>92</sup> Through this ambitious initiative, the government will assign each citizen a single unique identifier that would enable them to access education, healthcare, housing services, participate in civic processes, get married, obtain a driver's licence, open a bank account and even activate mobile-enabled SIM services.<sup>93</sup> As of May 2019, nearly 31 million Kenyans had already had their fingerprints scanned for this new biometric system.<sup>94</sup>

There have been challenges, however. In rural areas, long travel distances, poor mobile network coverage and equipment failures have hampered registration.<sup>95</sup>



# 31M

Kenyans registered their biometrics by May 2019



World Bank credit, part of which to be applied to the implementation of the digital ID strategy

# \$750M

Additionally, civil society organisations have challenged the constitutionality of the initiative, seeking guarantees about inclusivity and questioning the security of the personal data collected.<sup>96</sup> To address data protection challenges, the Data Protection Act was passed in late

2019.<sup>97</sup> The Act gives effect to Article 31 (c) and (d) of the Constitution, guaranteeing every person the right to privacy, including personal data privacy. On 30 January 2020, the High Court of Kenya ruled that the state is at liberty to proceed with the NIIMS initiative and use the data collected in accordance with the law.<sup>98</sup>

Although the court maintained that the legislative framework for vulnerable and marginalised populations is inadequate, the state was ordered to put a regulatory framework in place for the collection of personal data prior to implementing this component of the digital ID strategy.<sup>99</sup>

In May 2019, the World Bank approved a \$750 million international development credit to support Kenya's reforms to enhance inclusive growth. Part of this fund is to be applied to the implementation of the digital ID strategy to improve the efficiency of government service delivery to citizens.<sup>100</sup>

It is anticipated that good governance and enforcement mechanisms will be enhanced through the use of digital technologies.<sup>101</sup>

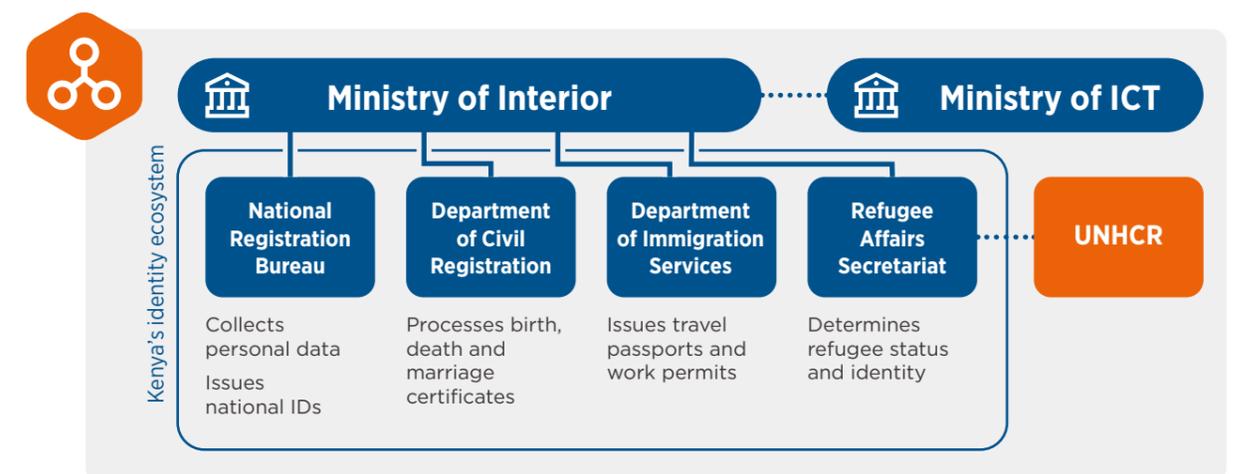
91 Presidency of the Republic of Kenya (2015), *Integrated Data System To Make E-government A Reality*.  
 92 Kihiiu, N. (16 May 2019), "Government Urges Huduma Number Registration Ahead of Deadline", Capital News.  
 93 Ibid.  
 94 KTN News (13 May 2019), *Huduma Namba for all: 31 Million Kenyans reported to have been registered so far*.  
 95 Kimuyu, H. (16 May 2019), "Long queues as Kenyans rush to beat Huduma Namba deadline", Nairobi News.  
 96 BBC News (31 January 2018), *Huduma Namba: Kenya court halts biometric ID over data fears*.  
 97 Kenya Law (2019), *Laws of Kenya: Data Protection Act No. 24 of 2019*.  
 98 Kakah, M. (30 January 2020), "Huduma Number given greenlight but 'within proper laws'", Nation.  
 99 Ibid.  
 100 World Bank (28 May 2019), *World Bank approves \$750 Million for Kenya in support of reforms in agriculture, housing, digital technology and fiscal management*.  
 101 Ibid.

## Policy frameworks

### Institutional environment

The Ministry of Interior, with the support of the Ministry of ICT (MoICT), oversees Kenya's identity ecosystem. The National Registration Bureau (NRB), which operates an automated fingerprint identification system to prevent duplication, is responsible for collecting personal data and issuing national IDs. The Interior Ministry also oversees three other related

departments: the Department of Civil Registration (DCR), Department of Immigration Services (DIS) and the Refugee Affairs Secretariat (RAS). While the CRD processes birth, death and marriage certificates, the DIS issues travel passports and work permits, and RAS works with the UN Refugee Agency (UNHCR) to determine refugee status and identity.



### Legal environment

The constitution, attendant legislative and regulatory frameworks govern the identity ecosystem in Kenya. Under the current constitution, citizens are entitled to a state-recognised ID, such as a passport and NID.<sup>102</sup> Considering that the credentials are issued by the various agencies operationalising Acts of Parliament and are motivated by the initiatives they drive, there are other pieces of legislation in the identity ecosystem. These include the Registration of Persons Act (1949), the Births and Deaths Registration Act (1928), the

Kenya Citizenship and Immigration Act (2011) and the Refugees Act (2006). Others with specific obligations include the National Hospital Insurance Fund Act (1998), the National Social Security Fund Act (2013), the Kenya Revenue Authority Act (1995) and the Independent Electoral and Boundaries Commission Act (2011). These are complemented by the Data Protection Act of 2019, which provides safeguards for the collection of personal data.<sup>103</sup>

102 Kenya Human Rights Commission (2019), *Report on Digital Identification Document and Citizenship Consultative Meeting*.  
 103 Laws of Kenya (2019), *Data Protection Act No. 24 of 2019*.

## Role of mobile

### SIM registration model

In Kenya, MNOs are obligated to capture and share their customers' personal data with the government.<sup>104</sup> Failure to comply with the law on mandatory registration of SIMs is punishable with fines of up to USD 50,000.<sup>105</sup> As of mid-2020, Kenya's Communications Authority is reviewing SIM registration guidelines. Under the proposed guidelines, telecommunications service providers would set up an online portal for the

submission of quarterly reports<sup>106</sup> that include newly registered subscribers and those disconnected. A 2019 forensic audit sanctioned by the regulator established that while MNOs in the country are keen to expand their subscriber bases, field agents might not strictly follow the procedure for validating identification credentials. However, the report showed there is room for MNOs to improve SIM registration practices.<sup>107</sup>

### Status of connectivity and digital ID

Kenya has three major players in the mobile sector: Telkom, Airtel and Safaricom. The Communications Authority of Kenya regulates the market and, as of the end of 2019, the aggregate number of active SIM cards in Kenya stood at 52.2 million. This is up from 51 million at the end of March 2019 and translates into 109.2 per cent SIM card penetration.<sup>108</sup>

Mobile is one electronic channel through which financial services can be delivered. In Kenya, USSD is critical to the provision of mobile financial services (MFS) on nearly all phones, as it enables instructions to authenticate users to access services.<sup>109</sup> MNOs therefore provide critical infrastructure for identity as a service (IaaS),<sup>110</sup> and Telkom, Airtel and Safaricom platforms provide a way to access financial services online using a digital identity.



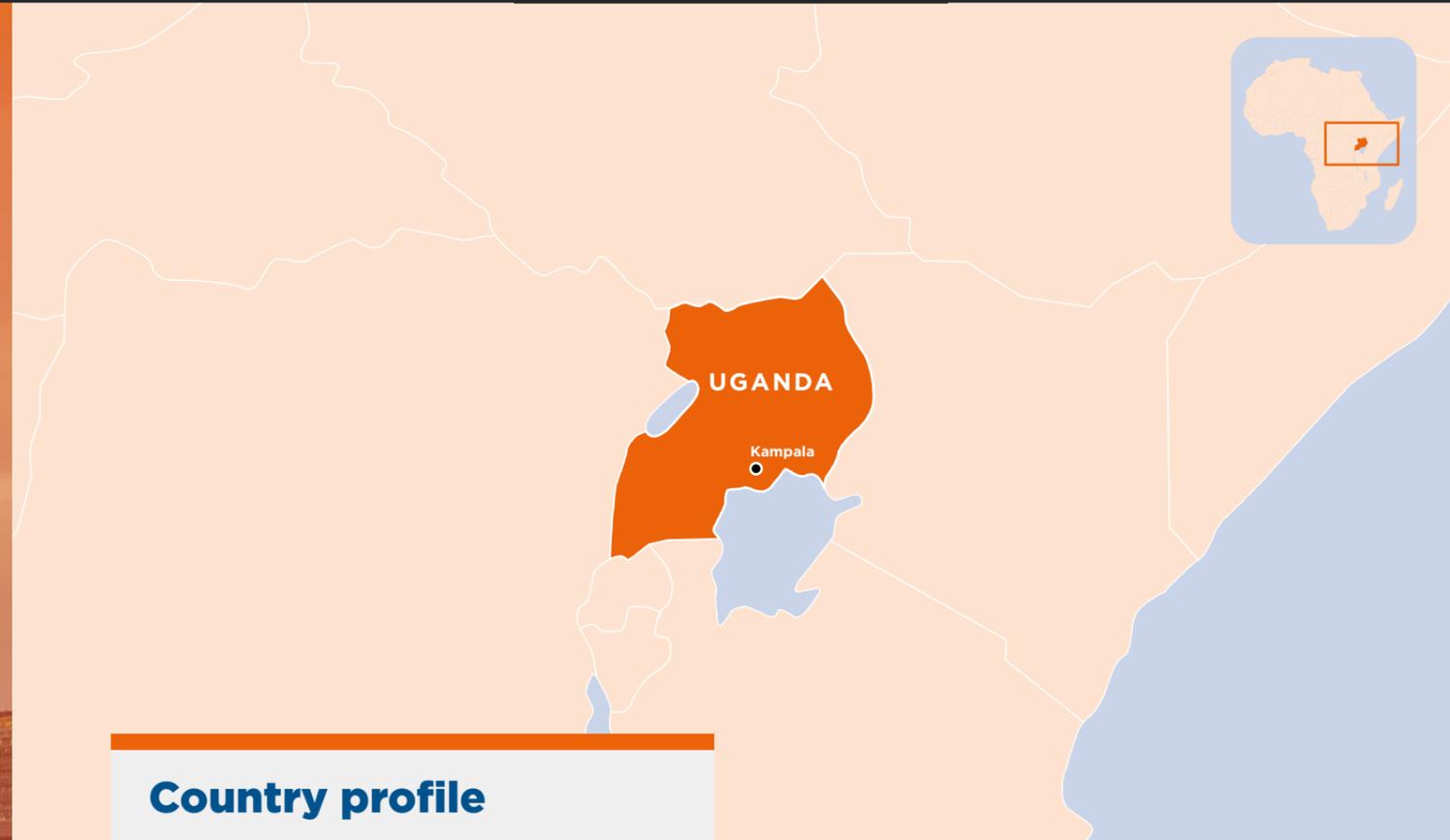
104 Communications Authority of Kenya, Registration of SIM Cards Regulation, 2015.  
 105 Communications Authority (2019), Press Statement on the Findings of Forensic Audit on Registration of SIM Cards.  
 106 Communications Authority of Kenya (2019), New SIM Registration Guidelines.  
 107 Communications Authority of Kenya (2018), Forensic Audit on SIM Registration.  
 108 Communications Authority of Kenya (2019), Sector Statistics Report (April–June 2019).  
 109 Competition Authority of Kenya (no date), Mobile Financial Services and Regulation in Kenya.  
 110 Ibid.





# 4

## Uganda



### Country profile

Uganda is a landlocked country in East Africa bordered by Kenya, South Sudan, Democratic Republic of the Congo, Rwanda and Tanzania. With a population of about 41 million people, its economy is supported largely by agriculture and the service sector. The service sector expanded by 1.3 per cent in Q1 of 2019/20, compared to 6.8 per cent in Q1 of

2018/19. This growth was driven in part by trade and repair services and ICT activities.<sup>111</sup> The major players in Uganda's mobile sector are MTN, Airtel, Uganda Telecom, Africell and i-Tel, and there is a unique subscriber base of approximately 26.8 million (as of the end of 2019).<sup>112</sup>



Population

# 41M



Unique subscribers

# 26.8M



Major MNOs

**MTN, Airtel Uganda Telecom, Africell, i-Tel**

<sup>111</sup> Uganda Bureau of Statistics (2020), Key Economic Indicators 115th Issue: Q1 2019/20.

<sup>112</sup> GSMA Intelligence (2020), "Market Overview in Uganda".

## The identity ecosystem

In Uganda, registration of births, deaths and marriages started in 1904, and today a unique national ID number (NIN) is issued to every child upon registration of their birth.<sup>113</sup>



Registration of births, deaths and marriages started in 1904

# 1904



**Unique national ID number issued at birth**

In 2010, the mobile Vital Records System (m-VRS) was developed with the support of UNICEF under a public-private partnership between Uganda Telecom (UTL) and the Government of Uganda.<sup>114</sup> The aim was to address bottlenecks in Uganda's analogue, paper-based system and to streamline and decentralise ID registration services. The m-VRS enables the use of a web-based app and mobile USSD to register births and

deaths in health facilities and villages. The information is then accessible by back office registration officers who verify the registration is complete prior to approving the printing and issuance of the birth certificate.<sup>115</sup> While birth registration is free for individuals, there is a fee for issuing a birth certificate. As of the end of 2017, birth certificates were \$1.40 for nationals, \$40 for non-nationals and free for refugees.<sup>116</sup>



Birth registration is

# free



Cost to issue a birth certificate (2017)

**\$1.40 (nationals)**  
**\$40 (non-nationals)**  
**free (refugees)**

Under the 1930 Act, births must be registered with the hospital administrator or county chief, who would issue a short certificate that could then be submitted to the Uganda Registration Services Bureau for a fee to obtain a long-form birth certificate.

To make the process more efficient and increase birth registration rates, the National Identification and Registration Authority (NIRA) has been opening offices and registries across districts of Uganda. Mobile registration units have been deployed to serve

residents of remote areas.<sup>117</sup> This initiative is being funded in part by the World Bank's Reproductive Maternal and Child Health Services Improvement Project (URMCHP). A campaign conducted between 2014 and 2016, "My Country, My Identity", registered 15.3 million voters with the Electoral Commission and 14.8 million residents for a National Identity Card (NIC).<sup>118</sup> Although NIRA facilitates continuous registration for citizens and legal residents to receive a NIN and claim a NIC, the campaign was conducted to ensure Ugandans of voting age were registered

for a NIC ahead of the 2016 general elections. The current national ID system may now be leveraged by private sector service providers, such as MNOs and financial institutions, to authenticate the credentials

of their customers. This has played an important role in expanding financial inclusion, strengthening social protection programmes and supporting humanitarian efforts.<sup>119</sup>

### ID and service delivery

The NIN and NIC have a demonstrated role in service delivery in both the private and public sectors. For the Government of Uganda, the ID system provides a platform to uniquely identify and authenticate the people they serve. In addition, national ID systems facilitate e-KYC requirements in the banking sector, expanding financial inclusion.<sup>120</sup> For instance, the Ministry of Gender, Labour and Social Development (MGLSD) has implemented a social protection policy that requires reliable identification of target recipients to receive financial transfers. This requires deduplication of enrolments to create a credible social registry linked to the national identity registry.<sup>121</sup>

To link the government's various social protection programmes and promote accountability, Uganda's Ministry of Gender and Social Development plans to harmonise the programmes through the development of a unified personal ID database<sup>122</sup> that would use a unique identifier, the NIN, issued by NIRA.<sup>123</sup> Given that NIRA-generated biometrics also aid in the fight against crime, the private sector has applauded the ID database for enhancing commercial interests. Financial institutions and other service providers can use the database to authenticate customers' credentials.<sup>124</sup>

### Digital ID strategy

In Uganda, a reliable identity scheme has been recognised as enabling effective service delivery and policymaking.<sup>125</sup> In addition to My Country, My Identity campaigns, there have been extensive advocacy and mobilisation initiatives to promote the benefits of the NIN. Prior to the creation of NIRA, which consolidated the collection and harmonisation of personal identification data, Uganda launched a national ID project, the National Intelligence and Security System (NSIS) in 2010.<sup>126</sup> The NSIS identity card is a biometrically-enhanced and machine-readable card that was created to enable national security to facilitate the provision of fair and equitable civil administration services. However, there were a variety of challenges,

ranging from accountability issues to the lengthy trips rural residents had to make to visit registration centres.<sup>127</sup> Besides helping service providers obtain information on customers, there has been much interest in having a clean database of registered and eligible voters.<sup>128</sup>

In 2019, NIRA issued a national ID card free for all citizens. In addition, the Government of Uganda, under the Office of the Prime Minister, has embarked on an initiative to biometrically verify the identities of refugees living in Uganda, supported by UNHCR<sup>129</sup> and the World Food Programme (WFP) to strengthen humanitarian programming.<sup>130</sup>

<sup>113</sup> World Bank (2017), *The State of Identification Systems in Africa*.

<sup>114</sup> Uganda Mobile VRS (2020), *About Mobile Vital Records System*.

<sup>115</sup> Ibid.

<sup>116</sup> World Bank (2017), *The State of Identification Systems in Africa*.

<sup>117</sup> Dignified (2019), *NIRA receives two fully equipped vehicles to support mobile registration*.

<sup>118</sup> World Bank (2017), *The State of Identification Systems in Africa*.

<sup>119</sup> World Bank (2018), *ID4D Country Diagnostic: Uganda*.

<sup>120</sup> Ibid.

<sup>121</sup> Ibid.

<sup>122</sup> Development Pathways (2019), *Upgrading a Social Assistance MIS and Linking Social Protection Programmes with a Single Registry*.

<sup>123</sup> World Bank (2018), *ID4D Country Diagnostic: Uganda*.

<sup>124</sup> New Vision (30 October 2018), *Benefits of Financial Inclusion to Financial Service Regulation*.

<sup>125</sup> GSMA (2019), *Digital Identity Country Profile: Uganda*.

<sup>126</sup> ITU (2016), *Review of National ID Programs*.

<sup>127</sup> Ibid.

<sup>128</sup> GSMA (2019), *Digital Identity Country Profile: Uganda*.

<sup>129</sup> GSMA (27 February 2020), *Proportionate regulation in Uganda: A gateway for refugees accessing services in their own name*.

<sup>130</sup> UNHCR (2018), *Uganda starts biometric verification of refugees*.

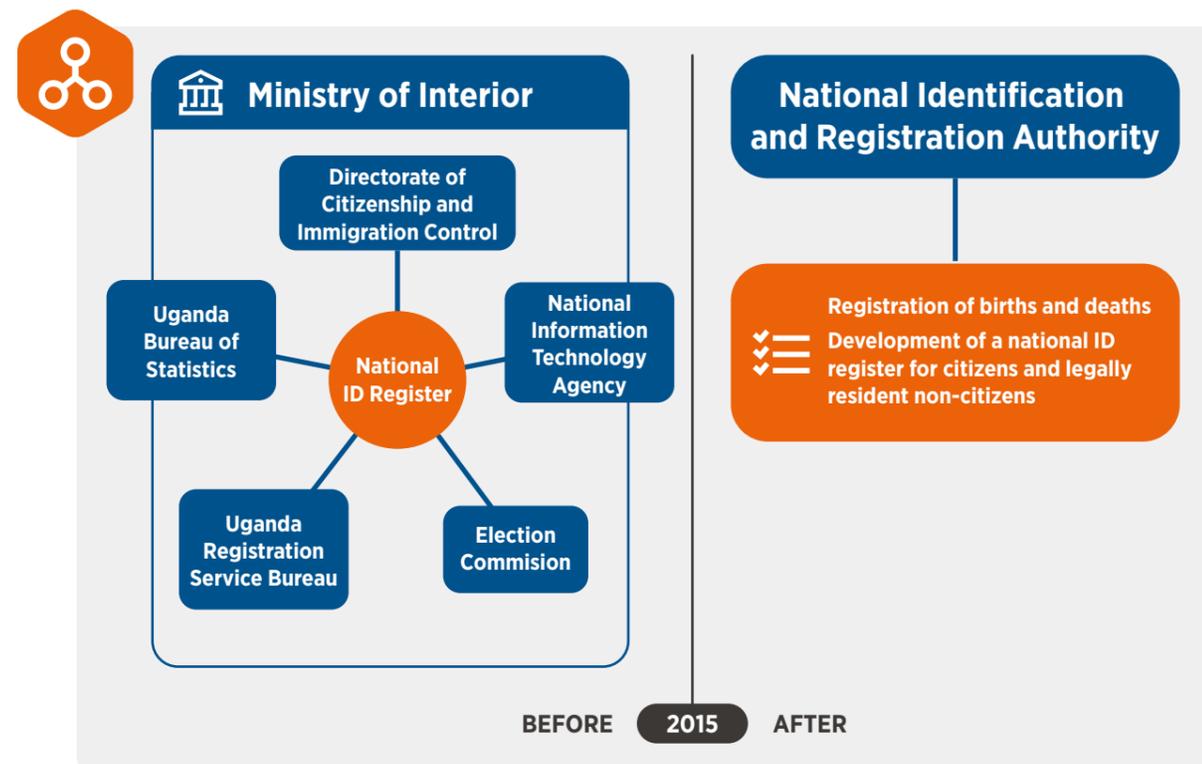
In 2018, the Ugandan Government, through the National Identification and Registration Authority, began investigating how to develop a mobile enabled ID platform. Although there are over 100 e-government services available to the public, they are not interoperable and citizens must register using different user profiles. Since SIM registration is mandated in Uganda, the Authority has been exploring how the e-government platform could be linked to a mobile ID that people could use once their mobile SIM card had been registered and validated against their biometric ID card.<sup>131</sup>

## Policy frameworks

### Institutional environment

Until 2015, Uganda's national ID registration for deaths, births and NIN was a collective effort of the Directorate of Citizenship and Immigration Control, the National Information Technology Agency, Election Commission, the Uganda Registration Services Bureau and the Uganda Bureau of Statistics, under the policy direction

of the Ministry of Interior. However, in 2015, under the Registration of Persons Act, NIRA assumed sole responsibility for the registration of births and deaths, and for the development of a national identification register for citizens and legally resident non-citizens.<sup>132</sup>

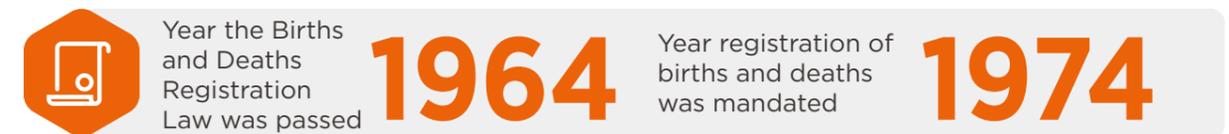


<sup>131</sup> GSMA (2020), Digital Identity Programme: Insights and Achievements (2016–2020).

<sup>132</sup> Government of Uganda (2015), National Identification and Registration Authority.

### Legal environment

Uganda passed the Births and Deaths Registration Act in 1964, and a review in 1970 made it mandatory to register births and deaths. In 2016, a policy shift resulted in the creation of NIRA to oversee the country's entire identity architecture and infrastructure.



NIRA currently supervises the enrolment and issuance of the electronic NIC. Inspired by the digital ID strategy, Uganda's parliament enacted the Data Protection and Privacy Act,<sup>133</sup> which was signed into law in February 2019. This law provides safeguards for the security of personal data held by NIRA, which plans to allow private sector entities, such as educational and financial institutions, MNOs and healthcare providers,

to authenticate personal credentials.<sup>134</sup> According to the World Bank, levying a minimal fee for authentication can assure the sustainability of the systems.<sup>135</sup>



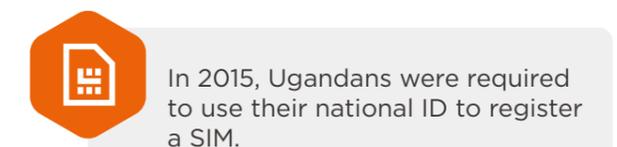
## Role of mobile

### SIM registration model

In 2012, the Uganda Communications Commission (UCC) imposed rules making it mandatory for MNOs to register SIMs.<sup>136</sup>



Up until 2015, mobile customers in Uganda were required to present an official ID to purchase a SIM, such as a driver's licence or passport, and MNOs were required to capture and store these details in a secure database. However, in 2015, the government changed the requirements in line with the Registration of Persons Act 2015.<sup>137</sup> The new rules require Ugandans to register their SIM exclusively using a national ID card, which can be verified against the NIRA database.



<sup>133</sup> Government of Uganda, Ministry of ICT and National Guidance (2019), Data Protection and Privacy Act, 2019.

<sup>134</sup> New Vision (4 March 2019), Overview of the data protection regime in Uganda.

<sup>135</sup> World Bank (2019), Identity Authentication and Verification Fees: Overview of Current Practices.

<sup>136</sup> Bambino, R. (13 February 2015), "Government to synchronise both SIM card and National ID registration data", Techjaja.

<sup>137</sup> GSMA (2019), Access to Mobile Services and Proof of Identity 2019.

While foreigners must provide passports to register a SIM, refugees are required to present a certified document from the Office of the Prime Minister (OPM).<sup>138</sup> In 2018, the UCC introduced the use of biometric card readers<sup>139</sup> to help MNOs register and/or replace SIMs and validate subscriber information

contained in the digital ID card against the NIRA database in real time.<sup>140</sup> As of 2020, customers are advised to purchase SIM cards from authorised agents in person who will activate it upon provision of an original national ID and fingerprint biometrics.<sup>141</sup>

### Status of connectivity and digital ID

Uganda has four major players in the mobile sector: MTN, Uganda Telkom, Africell and Airtel. The market is regulated by the UCC. As of the end of 2020, the number of unique mobile SIM connections in Uganda stood at 27.6 million and 88.9 per cent network coverage by population.<sup>142</sup>



In April 2017, a new government regulation was issued requiring all SIM cards to be registered with their verified NIN. This mobilised thousands of citizens who had not registered during the mass registration or had not yet picked up their national ID card. The NIN is increasingly becoming the only legally accepted national ID in Uganda. Without it, citizens and residents cannot enjoy basic fundamental rights, access a range of services or fully participate in the digital world,<sup>143</sup> exacerbating exclusion, inequality and discrimination,

especially among underprivileged members of society.<sup>144</sup> Given the challenges of creating digital IDs, particularly for populations with little knowledge of the benefits of identification or those who live in remote areas where mobile registration units are deployed,<sup>145</sup> the business assets of MTN, Uganda Telkom, Africell and Airtel may be leveraged. In addition to providing outlets for registration, MNOs can help raise awareness of the benefits of identification and the life-enhancing services that IDs can unlock.



<sup>138</sup> Ibid.

<sup>139</sup> The Observer (18 April 2018), Cabinet directs UCC to ease SIM card registration.

<sup>140</sup> Uganda Communications Commission (2018), Lifting of the ban on the sale and replacement of SIM cards.

<sup>141</sup> Uganda Communications Commission (30 June 2020), "UCC Suspends SIM registration for Corporate Bodies - following complaints alleging failure to adhere to the set SIM card registration processes", Uganda Communications Commission Blog.

<sup>142</sup> Communications Authority of Kenya (2019), Sector Statistics Report (April-June 2019).

<sup>143</sup> GSMA (2016), Number of Unique Mobile Subscribers in Africa Surpasses Half a Billion, Finds New GSMA Study. Press Release.

<sup>144</sup> Good ID (2020), Preliminary Report - Uganda's Digital ID: A Cocktail of Discrimination.

<sup>145</sup> Dignified (2019), NIRA receives two fully equipped vehicles to support mobile registration.



# Conclusion

A secure digital ID ecosystem is vital to the inclusive and efficient delivery of life-enhancing services in Sub-Saharan Africa.

In all four countries featured in this report, there is an appreciation of how proof of identity requirements can complement digital and financial inclusion efforts. As more governments mandate mobile SIM registration and financial regulatory authorities enforce more stringent KYC requirements, partnerships between regulators and the mobile industry could offer an opportunity to improve efficiencies while reducing the burden of regulatory compliance. Mobile technology is uniquely positioned to enable secure and inclusive digital identity, and it is critical for service providers to keep this in mind when developing ID-linked services.

Given the smooth customer on-boarding and mobile penetration levels in Sub-Saharan Africa, there is a compelling proposition for the governments of Benin, Ghana, Kenya, Uganda – and other countries with a similar political will – to partner with MNOs to boost economic growth and enhance the efficiency of service delivery, both by private and public sector providers. For example, to enrol residents in new digital identity ecosystems more efficiently and inclusively, governments may wish to capitalise on the mobile revolution and leverage the business assets of MNOs, including their extensive retail networks, established personal data privacy practices and experience in dealing with customers and managing their personal data.



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