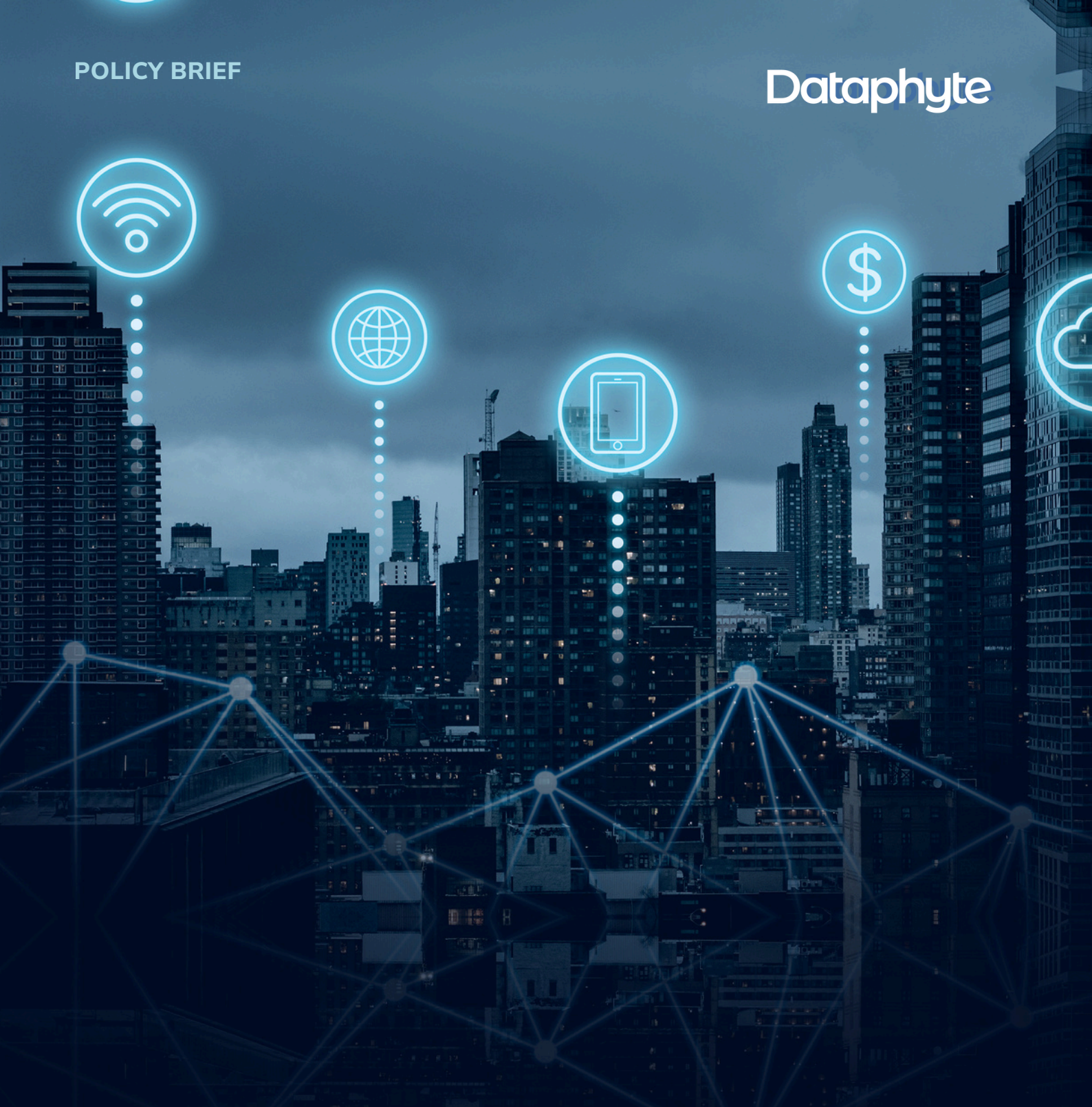
POLICY BRIEF

Dataphyte



Assessing The Current State of Nigeria's Digital Public Infrastructures

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Executive Summary/Abstract

Since 1999, Nigeria has made considerable progress in developing its National Data Transmission Backbone Infrastructure (NBI) and building e-government systems. These efforts have been central to the country's economic development, digital transformation, and improvements in public service delivery.

Since the launch of Nigeria's National Backbone Infrastructure (NBI) in 2006 with the establishment of Galaxy Backbone Limited, a government-owned company tasked with providing ICT infrastructure and services to government agencies and the private sector, the country has made increasing progress in e-governance services. The emergence of Galaxy Backbone and the continuous expansion of the NBI in connecting major cities and towns across Nigeria have improved connectivity and facilitated data transmission among government agencies. For instance, the federal government launched its official portal to provide citizens with access to government information and services. Also, various government agencies have introduced online services, including passport applications, tax filing, and business registration (which has further opened and is currently expanded through OGP initiatives, and beneficial ownership information in the country). Another e-governance initiative is the National Identity Management Commission (NIMC), established to oversee the issuance of national identification cards. NIMC has played a crucial role in promoting identity management and digital transactions. Collectively, these developments mark important progress toward a digitally enabled public sector.

While laudable, this rapid development in Nigeria's digital economy and digital services within government infrastructure has given rise to several other pertinent ethical and human rights challenges, including data privacy concerns, digital exclusion of marginalised populations, and abuse of power by state authorities. The civil society's engagement over the years has largely focused on sensitising key government arms and agencies towards openness, transparency, and accountability dimensions of the Digital Public Infrastructure, culminating in practice into the OGP structure and institutional frameworks. While the national government in Nigeria has

shown a willingness to adopt the overarching principles of open governance, there needs to be a framework to ensure that all technologies are being used responsibly and are human rights-centred. Nada Al-Nashif, United Nations Deputy High Commissioner for Human Rights, said- 'Governments have to protect citizens against abuse and misuse of digital technologies and we must work together to mitigate the harmful use of technologies to fully harness its enabling potential." at a panel discussion that looked at efficient ways of using new technologies to overcome human rights challenges in the context of the COVID-19 pandemic.

Currently, there is a low involvement of the third sector in co-creating the frameworks, regulations or providing digital rights review and service protection mechanisms to safeguard citizens and the country from potential threats such as cybersecurity risks, and repressive surveillance measures, among other concerns requiring robust measures to protect sensitive personal and national interests data. There is also an emphasis on ensuring that the introduction of digital technologies into public sector governance does not widen inequalities and significantly reinforce harmful stereotypes, which then leads to exclusion. While significant progress has been made, there are large digital infrastructure gaps across regions, particularly in rural areas of Nigeria, which widens the digital divide between urban and rural areas, as well as different socioeconomic groups. Efforts are needed to bridge this gap, ensure equitable access to digital services, secure digital transformation mechanisms, develop public trust through policy, and safeguard human rights and freedoms in the provision of digital services.

Nigeria, since joining the OGP, together with civil society organisations in the country, has co-created and implemented two National Action Plans (2017-2019 and 2019-2022) and is currently implementing the third national plan[1]. The NAP III, an enhancement to previous National Action Plans, identifies the expected impact, outcome, milestones, and activities that will produce the expected impact.

1 The Third National Action Plan. (2023, March 14th). The Third National Action Plan. https://ogpnigeria.gov.ng/actionplan/the-third-national-action-plan

The action plan is motivated by the desire to have a measurable, beneficial impact on ordinary Nigerians by identifying the factors that impede effective public engagement in government. NAP III has 13 Commitments in 7 Thematic Areas[2].

As the country's stakeholders develop the country's NAP IV, Dataphyte Foundation as the civil society co-chair of the Technology and Innovation TWG proposes to implement a project aimed at understanding the current state of digital public infrastructure as it relates to data protection impact, reviewing federal and subnational e-governance policies, technologies and standards; and draw commitments from the government on the Open Government Challenge[3].

2 The Third National Action Plan. (2023, March 14th). The Third National Action Plan. https://ogpnigeria.gov.ng/actionplan/the-third-national-action-plan

3 Open Government Partnership Nigeria. (n.d.). Open Government Challenge Areas. Open Government Challenge Areas. https://www.opengovpartnership.org/the-open-gov-challenge/open-government-challenge-areas/

Introduction

In the wake of the COVID-19 pandemic in 2020, almost all forms of infrastructure either went quiet or struggled to provide the necessary support for governments and public officials to meet the public's demands. Digital infrastructure emerged as the sole resilient pillar, enabling continuity in governance, service delivery, and citizen engagement. This reality, coupled with evidence of their potential to facilitate more effective delivery of public service and creation of utilities for citizens over the past two decades, naturally led to an increasing realisation in countries globally, including Nigeria, that the status of their Digital Public Infrastructure (DPI) must be improved to increase the quality of public service delivery and provide citizens with an improved standard of living.

India is considered a flagship nation in DPI, not only for the critical role that DPI plays in its development but also as a prominent playbook on how governments can successfully develop DPI initiatives[5]. The most popular of the country's DPI initiatives is Aadhaar, which translates to 'foundation' in several Indian languages and serves as the foundation of the biometric identity database for more than one billion citizens in the country, the largest globally. This initiative, coupled with other DPIs that have been built on it, has enabled India to achieve in seven years a progress that would have otherwise taken 47 years[6].

So it came as no surprise that in 2023, when Nigeria decided to design improved DPIs for government services, it looked to stakeholders in India for guidance and

4 Center for Journalism and Liberty. (2020, November). What is Digital Public Infrastructure? What is Digital Public Infrastructure? https://static1.squarespace.com/static/5efcb64b1cf16e4c487b2f61/t/5fb41b6aac578321b0c50717/1605639019414/zuckerman-digital-infrastructure-cjl-nov2020.pdf

5 Digital Public Infrastructure for an Equitable Recovery. (2021, August). Digital Public Infrastructure for an Equitable Recovery. https://www.rockefellerfoundation.org/wp-content/uploads/2021/08/Co-Develop-Digital-Public-Infrastructure-for-an-Equitable-Recovery-Full-Report.pdf

6 Bank for International Settlements. (2019, December). The design of digital financial infrastructure: lessons from India. The design of digital financial infrastructure: lessons from India. https://www.bis.org/publ/bppdf/bispap106.pdf

sought to leverage the country's experience[7]. On the sidelines of the last G20 summit, Nigeria's Minister of Communications, Innovation and Digital Economy, Dr. Bosun Tijani, held discussions with the leadership of India's eGov Foundation, architects of DIGIT, credited for the design of DIGIT, the world's largest open-source good governance technology platform. Following this engagement, Bosun Tijani announced that a Memorandum of Understanding was in the pipeline between both parties on the development of DPIs in Nigeria.

7 Tijani, B. (n.d.). Signing of MoU [X]. https://x.com/bosuntijani/status/1700032287293710601

Nigeria's DPI Landscape Before 2023

While the concept of Digital Public Infrastructure is relatively new, elements, or better still, infrastructures that conveniently fall within the confines of its three broad categories – identity, payments, and data exchange – have existed in Nigeria for decades. For example, the Nigeria Interbank Settlement System (NIBSS), which provides the foundation for financial payments in the country, was established in 1993. Although the current state of the NIBSS is vividly different from what was obtainable at inception because of the paradigm upgrades that have been made on it, discussing the payments component of Nigeria's DPI without this context would be incomplete.

Identity and Payments

As a category of DPI, identity systems are infrastructures designed to enable the creation, management, and authentication of unique identities that can be applied in digital settings. Even though Nigeria's identity system has an origin that dates back to 1967 when the country's former Military Head of State, Yakubu Gowon floated the idea, the country did not make efforts to develop a digital public infrastructure for it until 2007 when the National Assembly enacted the National Identity Management Commission (NIMC) Act and former President Olusegun Obasanjo signed it into law on May 25, 2007 as one of his final activities in office.

This Act mandated the establishment of the National Identity Management Commission (NIMC), which came to life in 2010, replacing the Department for National Civil Registration (DNCR). It also charged the NIMC with the responsibility for the maintenance of the National Identity Database (NIDB), which contains the biometric, facial appearance and other essential demographic data of every individual assigned the National Identification Number (NIN), an 11-digit lifetime identifier mandatory for all Nigerian citizens and legal residents. This new digital identity system represents a stark departure from the defunct DNCR, which focused on only identity cards without a centralised and accessible National Identity Database, verification or authentication infrastructure.

8 National Identity Management Commission. (2010). https://nimc.gov.ng/

In every country with a functional digital public infrastructure, the digital identity provided by the NIN in Nigeria is just one of many necessary infrastructures. This explains why other efforts have been made to build on the digital identity system for the public good. For example, in December 2020, the government, through the Nigerian Communications Commission (NCC), mandated the linkage of all mobile numbers to NIN. This move was designed to enhance national security, accelerate economic planning and development through data-driven policies, and connect all the records about an individual's identity into the National Identity Database.

But before the government mandated the linkage of NIN with Subscriber Identity Module (SIM), a similar policy was implemented in the banking sector: NIN linkage with Bank Verification Number (BVN). In February 2014, the Central Bank of Nigeria introduced BVN, a centralised biometric identification system for the banking industry that assigns a unique identification number to every bank customer in the banking system. This identity was designed to enhance the effectiveness of the Know Your Customer (KYC) requirement and enhance the safety and reliability of the payment systems. Following the launch, the CBN mandated all bank customers in the country to link their BVN to every bank account they own. In December 2023, as part of efforts to ramp up the level of compliance, it issued an order, now tentatively postponed, that mandates banks to block accounts not linked to BVNs[12].

8 Leadership. (2024). NIN-SIM Linkage, A Matter Of Security. NIN-SIM Linkage, A Matter Of Security. https://leadership.ng/nin-sim-linkage-a-matter-of-security/#:~:text=%E2%80%9COne%20major%20objective%20of%20linking,their%20NIN%20to%20the%20SIM.

9 Leadership. (2024). NIN-SIM Linkage, A Matter Of Security. NIN-SIM Linkage, A Matter Of Security. https://leadership.ng/nin-sim-linkage-a-matter-of-security/#:~:text=%E2%80%9COne%20major%20objective%20of%20linking,their%20NIN%20to%20the%20SIM.

10 Central Bank of Nigeria. (n.d.). *Payments System*. Payments System. https://www.cbn.gov.ng/Paymentsystem/BVN.asp

11 Punch. (2024, March 2nd). NIN linkage: Banks may block 70 million accounts. *NIN linkage: Banks may block 70 million accounts*. https://punchng.com/nin-linkage-banks-may-block-70-million-accounts/

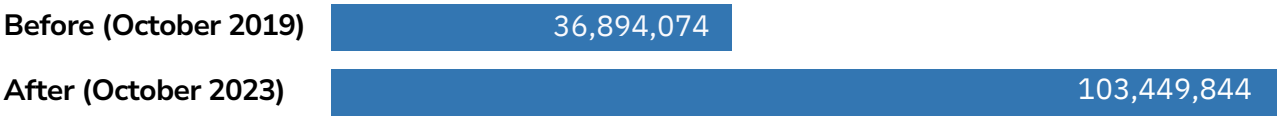
12 The Cable. (2024, May 10th). Over 107.3m Nigerians have registered for NIN, says NIMC DG. *Over 107.3m Nigerians have registered for NIN, says NIMC DG*. https://www.thecable.ng/over-107-3m-nigerians-have-registered-for-nin-says-nimc-dg/

Today, at least 107.3 million Nigerians have a digital identity an average figure, given Nigeria's estimated 200 million population – but the road to this point was not linear[13]. A few years after its launch, the NIMC, in 2013, announced a partnership with MasterCard to create electronic ID (eID) cards with the capacity to carry out electronic payments for citizens – the goal was for the eID cards to eventually serve other purposes like a driver's license and voter's card. Although the first set of eID cards was issued in 2014, it ultimately failed as it was marred by transparency concerns over the contract award14. In 2019, a Nigerian court ordered Mastercard and 22 banks working with them to halt the project.

Despite this setback in its early days, the country's digital identity framework found new momentum because of the support it received from the World Bank as part of its Digital Identification for Development (ID4D) project, funded alongside the Agence Française de Development (AFD), and the European Investment Bank (EIB).

A result framework analysis by the World Bank to gauge the outcome of the project shows that it increased the number of Nigerians with a digital identity from approximately 37 million citizens in October 2019 to 103.4 million citizens in October 2023[15].

Number of Nigerians with NIN Increased by almost 3x following the implementation of World bank's ID4D project



This data covers October 2019 and October 2023 respectively
Created with Datawrapper

14 Eke, D., Oloyede, R., Ochang, P., Borokini, F., Adeyeye, M., Sorbarikor, L., Oshinowo, B. W., & Akintoye, S. (2022, October 11th). Nigeria's Digital Identification (ID) Management Program: Ethical, Legal and Socio-Cultural concerns. Nigeria's Digital Identification (ID) Management Program: Ethical, Legal and Socio-Cultural concerns. https://www.sciencedirect.com/science/article/pii/S2666659622000166#:~:text=).-,In%202014%2C%20MasterCard%20issued%20the%20first%20eID%20cards%20at%20an%20official,).,-The%20current%20NIMC

15 World Bank. (n.d.). Nigeria Digital Identification for Development Project. Nigeria Digital Identification for Development Project. https://projects.worldbank.org/en/projects-operations/project-detail/P167183

When the NIMC Act came into effect in 2007, its mandate also included the creation of a General Multipurpose Card (GMPC) linked to a resident's NIN, which would eliminate the need for multiple cards. But the framework and pathway to achieve this did not happen until April 2024. In a report by the NIMC, it announced that it's partnership with the CBN and the NIBSS to deliver this integration, creating a single card that can be used for various use cases ranging from payment and financial services to government intervention and services[16]. Application for the card will be made through the NIMC, it will be designed and powered by the NIBSS through its indigenous Afrigo program, and will be issued to individuals by their banks. This multi-layered integration between the digital identity system, payment services and access to social amenities is exactly what effective DPIs look like.

The NIBSS plays an integral role as a foremost DPI in Nigeria today, but it did not start like this. Established in 1993 on the instruction of the Nigeria Bankers Committee, with ownership shared between the CBN and other banks. In the beginning, its initial focus was on providing core payment system infrastructure and services, such as the Automated Clearing House (ACH) and the Nigeria Automated Clearing System (NACS) for cheque clearing. Within its first decade – through moves like the introduction of guidelines for e-banking in 2003 and the issuance of mobile payment regulatory framework in 2009 – the NIBSS began its transformation into an infrastructure that can be categorized as a DPI, and the introduction of the BVN in 2014 cemented this as it took on the responsibility of managing the biometric identification system for Nigeria's financial sector[18].

Governance and Data Exchange

While DPIs are still an emerging concept with a wide range of possibilities, there is a consensus on some of their key areas. According to the United Nations Development

16 National Identity Management Commission. (2010). https://nimc.gov.ng/

17 National Identity Management Commission. (2010). https://nimc.gov.ng/

18 Nigeria Inter-Bank Settlement System. (n.d.). NIBSS Mandate. NIBSS Mandate. https://nibss-plc.com.ng/about-nibss/#:~:text=Evolution%20of%20Nigeria%20Payments%20System%20%26%20Regulation

Programme (UNDP), Enabling governance is a foremost one[19]. The existence of DPIs like NIN and BVN and the interoperability that exists between them points to their usage by the government in the discharge of public administration. But DPIs that exist within the framework of governance and data exchange in Nigeria extend beyond these: a major one is the Government Integrated Financial Management Information System (GIFMIS).

In December 2004, the Nigerian government, in partnership with the World Bank, developed the Economic Reform and Governance Project as the pilot of a broad public financial management reform in the country[20]. GIFMIS is the sub-component of this project designed to use technology to enhance public resource management and targeted anti-corruption initiatives. In 2012, the pilot phase of the project came into effect in six MDAs before it was extended to others through a phased approach. In the same year, the federal government launched the Treasury Single Account (TSA), a public accounting system that enables the Government to manage its finances using a single, unified account domiciled at the Central Bank of Nigeria. At the time, the government planned to roll out both infrastructures together with the new electronic funds transfer functionality of GIFMIS. But the TSA did not gain full traction and linked with GIFMIS until 2015 when the federal government, following the inauguration of former President Muhammadu Buhari, made it mandatory[22]. Through the linkage of these infrastructures, the Nigerian government aimed to digitally centralise the public service and enhance the returns citizens get.

However, the National Information Technology Development Agency (NITDA) in its August 2019 report titled Nigeria e-Government Interoperability Framework (Ne-GIF),

19 United Nations Development Programme. (n.d.). Digital Public Infrastructure (DPI). Digital Public Infrastructure (DPI). https://www.undp.org/digital/digital-public-infrastructure#:~:text=DPI%20is%20an,across%20public%20programmes.

20 Government Integrated Financial and Management Information System (GIFMIS). (n.d.). *About GIFMIS*. About GIFMIS. https://gifmis.gov.ng/about-gifmis/#

21 Government Integrated Financial and Management Information System (GIFMIS). (n.d.). About GIFMIS. About GIFMIS. https://gifmis.gov.ng/about-gifmis/#

22 The State House. (n.d.). Transparency & Anti-Corruption. Transparency & Anti-Corruption. https://statehouse.gov.ng/policy/transparency-anti-corruption/#:~:text=OnAugust%207%2C%202015,remitted%20into%20it.

acknowledged the government had not achieved integration with other relevant e-government solutions, thereby making it difficult to meet the increasing demand for efficient service delivery from Nigerians[23]. This failure was attributed to the absence of a framework for interoperability between government agencies. The introduction of the interoperability framework coincided with an upward shift in the quality of the e-government service in Nigeria based on the index ranking of the United Nations E-government Development Index. But to understand this shift, it's important to trace the framework for e-government services in Nigeria leading up to that period.

The provision of e-government services is a valuable indicator of a country's DPI development because it encompasses the digital systems, platforms, and infrastructure that enable the delivery of essential services to the public. Its introduction in Nigeria officially began with the establishment of the National Information Technology Development Agency (NITDA) in 2001 and the Nigerian National Policy for Information Technology, which laid the foundation for the use of information technology in various sectors, including government. In 2004, the National eGovernment Strategies Project (NeGSt) was launched as part of an extensive civil service reform designed to improve the capacity of the civil service to respond to the public service needs of the people.

The NeGST model, especially its public-private partnership design, was pinpointed as a viable model at the international conference for e-Government organised by the UN in China in 2007. The launch of NeGSt, alongside other government initiatives at the time, led to a proliferation of IT networks and assets across Federal Government Ministries, Departments & Agencies (MDAs), thereby undermining their effectiveness due to the absence of interoperability between this diverse set of digital infrastructures. To correct this problem and enhance the ability of MDAs to deliver

23 National Information Technology Development Agency. (2019, July). National Information Technology Development Agency. National Information Technology Development Agency, 1.2. https://nitda.gov.ng/wp-content/uploads/2020/11/Ne-GIFFinal1.pdf

24 Ayo, C. K., & Fatudimu, I. T. (n.d.). The Nigerian e-Government Strategies (NeGST): A Strategic Approach to Poverty Eradication in Nigeria. The Nigerian e-Government Strategies (NeGST): A Strategic Approach to Poverty Eradication in Nigeria. https://eprints.covenantuniversity.edu.ng/81/3/e-Government%20Strategies%20Final%20by%20Ayo%20C.%20K..pdf

service to the populace digitally, the federal government established the Galaxy Backbone (GBB) in 2006[25].

Despite these DPIs, the outcome for the Nigerian people was subpar, at best. For example, according to the index ranking of the United Nations E-government Development Index which measures online services, telecommunication connectivity and human capacity to determine the use of technology for governance in all member states of the UN, Nigeria consistently ranked below 140 between 2012 and 2018, making Nigeria one of the countries with the worst performances globally. This reality, including the need to improve the efficiency of service delivery in the Nigerian Public Service as part of efforts to actualise the Federal Government's vision of the Economic Recovery Growth Plan (ERGP) 2017-2020, led to the launch of the Nigeria e-Government Master Plan in 2019[26] [27].

This plan, launched by former Communications Minister Adebayo Shittu, was designed with the support of the Korea International Cooperation Agency (KOICA). It identified 25 e-Government initiatives to achieve the strategies for arriving at the Nigerian e-Government Vision 2020. These initiatives were classified under six components – Governance, financial resources, legal and regulatory arrangements, organisational structure, infrastructure technology, and service application. In the plan, the government also set an ambitious target to increase the country's global E-Government Development Index (EGDI) ranking to 100th in 2020, 75th in 2022, and 50th in 2024.

25 FEDERAL MINISTRY OF COMMUNICATIONS. (n.d.). NIGERIA E-GOVERNMENT MASTER PLAN. NIGERIA E-GOVERNMENT MASTER PLAN. https://fmcide.gov.ng/wp-content/uploads/2023/11/NgeGovMP.pdf

26 Okoro, E. (2019, May 26th). FG Launches Nigeria e-Government Master Plan in Abuja. FG Launches Nigeria e-Government Master Plan in Abuja. https://fmino.gov.ng/fg-launches-nigeria-e-government-master-plan-in-abuja/

27 FEDERAL MINISTRY OF COMMUNICATIONS. (n.d.). NIGERIA E-GOVERNMENT MASTER PLAN. NIGERIA E-GOVERNMENT MASTER PLAN. https://fmcide.gov.ng/wp-content/uploads/2023/11/NgeGovMP.pdf

It was against this backdrop that Ne-GIF was launched by the National Information Technology Development Agency (NITDA) in August 2019 to address the existing difficulty of integration between e-government solutions vis-à-vis citizens' increased demand for efficient service delivery. However, Nigeria's DPI progress still falls short of its benchmarks. Nigeria ranked 144th in 2020, 44 places below its targeted rank of 100th globally, and in 2022, it ranked 140th, 65 places below its targeted rank of 75th globally. While the 2024 EGDI data is yet to be released by the UN, there is little evidence that Nigeria will meet its ambitious 50th-place target.

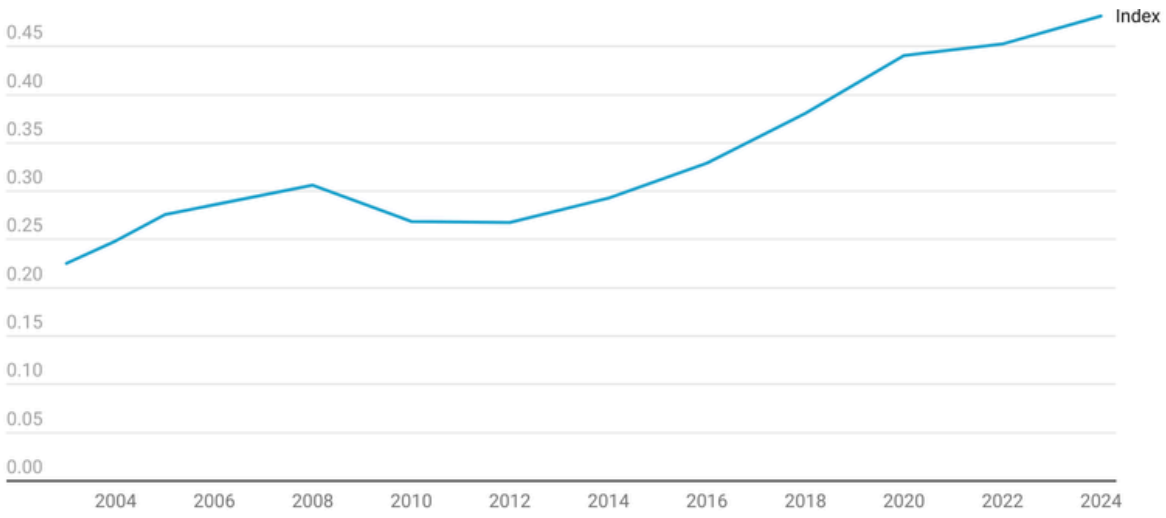
Nigeria has consistently performed below its target on the EGDI Ranking

Year	2020	2022	2024
Targeted Ranking	100	75	50
Actual Ranking	144	140	144

Created with Datawrapper https://www.datawrapper.de/_/olz3w/

Despite failing to meet its DPI framework's performance objectives, Nigeria's EGDI classification has improved, moving from low to middle over the past few years. Specifically, the upward trajectory of this performance index since 2016 puts it on track to achieve a high EGDI within the next few years, for the first time.

Nigeria's E-Government Development Index value (2003 - 2014)



EGDI value ranges from zero to one. 0.75 to 1.00 = Very high 0.50 to 0.7499 = High inclusive 0.25 to 0.4999 = Middle 0.0 to 0.2499 = Low

Created with Datawrapper https://www.datawrapper.de/_/OX1AT/

Current Digital Policy Landscape

In August 2023, Bosun Tijani was appointed Nigeria's Minister for Communications, Innovation, and Digital Economy. This development marked the beginning of a new phase for developing digital policy in the country. Bosun, the first member of Nigeria's tech ecosystem to get a national cabinet position, was expected to use his professional background to transform the digital policy landscape. This brief highlights the key activities that the Ministry and its parastatals, particularly the National Information Technology Development Agency (NITDA), have embarked on to meet this expectation[28].

In October 2023, the Federal Ministry of Communications, Innovation and Digital Economy (FMCIDE) launched the 3 Million Tech Talent program, designed to build the level of technical talent necessary to power the country's digital economy and position it as a net exporter of tech talent. Covering twelve technical areas, in its first cohort launched in November 2023, the program trained 30,000 Nigerians, 270,000

28 Oloruntade, G. (2023, August 16th). Bosun Tijani named minister of communications and digital economy. techcabal. https://techcabal.com/2023/08/16/bosun-tijani-named-minister-of-communications/

in its second cohort in February, and another 90,000 applicants were selected for its third cohort in November[29] [30] [31]. Similarly, in August 2023, NITDA launched a new program to train AI talent as part of its goal to train 1 million Nigerian developers[32]. While these programs remain in their early stages, there are already positive indicators; the 3MTT program has created 3,500 jobs for fellows in its first cohort and created over 4,000 micro-job opportunities[33].

In October 2023, the Minister published a whitepaper recognising the progress that Nigeria has made in its Digital Public Infrastructure (DPI), extensively captured in our background paper I, and made a case for a centralised approach to developing the country's DPI[34]. He noted that the integrated nature of a centralised system will address the fragmentation that currently exists and reduce the cost of governance in line with the mandate of the current administration. This policy position provides an insight into the direction Nigeria's DPI regulatory standard, expected to be issued by the end of the year as part of the framework for a national policy on DPI, will take[35].

In March 2024, NITDA's Director-General, Kashifu Inuwa, launched the agency's second Strategic Roadmap and Action Plan (STAR 2.0) to guide its activities between

29 Oloruntad, G. (2023, November 16th). Nigeria flags off plan to train 3 million tech talents to curb youth unemployment. techcabal. https://techcabal.com/2023/11/16/nigeria-3mtt-launches/

30 Federal Ministry of Communications, Innovation and digital Economy. (2024, February 29th). Minister Kicks Off Phase 2 of 3MTT Initiative; 270,000 New Fellows Selected. Minister Kicks Off Phase 2 of 3MTT Initiative; 270,000 New Fellows Selected. https://fmcide.gov.ng/minister-kicks-off-phase-2-of-3mtt-initiative-270000-new-fellows-selected/

31 Akintaro, S. (2024, November 13th). FG selects additional 90,000 Nigerians for cohort 3 of its 3MTT program. Nairametrics. https://nairametrics.com/2024/11/13/fg-selects-additional-90000-nigerians-for-cohort-3-of-its-3mtt-program/

32 Ogunseyin, O. (2023, August 30th). NITDA opens application for AI developers group training in Abuja. The Guardian. https://guardian.ng/news/nitda-opens-application-for-ai-developers-group-training-in-abuja/

33 Oloruntade, G. (2024, October 4th). Can 3MTT turn Nigeria into a global tech talent powerhouse? techCabal. https://techcabal.com/2024/10/04/3mtt-nigeria-tech-talent-powerhouse/#:~:text=3MTT%20reports%20that,sector%2C%20and%20more

34 Federal Ministry of Communications, Innovation and Digital Economy. (2023, October). Transforming Public Services in Nigeria: The Case for Centralised Digital Public Infrastructure. https://drive.google.com/file/d/1qaD8b8f7bjRTTsu-2Ekd_S1eSH4WfVVI/view

35 FEDERAL MINISTRY OF COMMUNICATIONS, INNOVATION & DIGITAL ECONOMY. (2023, October). Accelerating our Collective Prosperity through Technical Efficiency. https://drive.google.com/file/d/1fFtsDMTWoMWd0TXAcTeSRlUfjbOXZNhN/view

2024 and 2027[36], replacing the first action plan that lapsed in 2023. In STAR 2.0, the agency outlined its role and roadmap to execute seven of FMCIDE's nine key policy areas which include: National Policy on Digital Public Infrastructure (DPI), National Blockchain Policy, National Digital Economy Bill, Nigeria Startup Act (NSA), National Artificial Intelligence Strategy, National Data Strategy, and National Digital Literacy Framework (NDLF). On Digital Public Infrastructure, the agency committed to strengthening the legal and policy implementation framework in the country by developing its regulatory standards, facilitating the enactment of the digital economy bill, and creating a framework for data exchange, cyber insurance and Public Key Infrastructure (PKI)[37].

Another key focus of SRAP 2.0 is the centre of knowledge for digital transformation in the country. By 2030, the World Bank projects that Nigeria will need a workforce with digital expertise of 28 million people[38]. To ensure the country can meet this need, NITDA set a target to ensure 70 percent of Nigerians are digitally literate by 2027 in the action plan and 95 percent by 2030 through the implementation of the National Digital Literacy Framework[39] [40]. To meet this target, the NITDA has partnered with the National Youth Service Corps (NYSC) to train people in the informal sector and the Federal Ministry of Education to advance the country's digital literacy curriculum[41] [42] . The 3MTT project is also integral to its actualisation of this goal.

36 Akintaro, S. (2024, March 4th). NITDA unveils SRAP to push Nigeria's digital literacy to 70% by 2027. Nairametrics. https://nairametrics.com/2024/03/04/nitda-unveils-srap-to-push-nigerias-digital-literacy-to-70-by-2027/

37 National Information Technology Development Agency. (n.d.). Strategic Roadmap and Action Plan (2024-2027). 2.0. https://nitda.gov.ng/wp-content/uploads/2024/02/SRAP-2.O.pdf

38 World Bank. (2021). Demand for Digital Skills in Sub-Saharan Africa. https://documents1.worldbank.org/curated/en/099614312152318607/pdf/IDU0b36e9e030767f0417e0afb806e2ffdf1e8bf.pdf

39 Dariem, N. (2024, February 26th). NITDA Targets 95% Digital Literacy In Nigeria By 2030. Voice of Nigeria. https://von.gov.ng/nitda-targets-95-digital-literacy-in-nigeria-by-2030/

40 FEDERAL MINISTRY OF COMMUNICATIONS AND DIGITAL ECONOMY. (2023, July). NATIONAL DIGITAL LITERACY FRAMEWORK. https://nitda.gov.ng/wp-content/uploads/2023/07/Digital-Literacy-Framework.pdf

41 Quenum, A. C. (2024, September 9th). Nigeria Launches Digital Literacy Program for Informal Sector. https://www.wearetech.africa/en/fils-uk/news/public-management/nigeria-launches-digital-literacy-program-for-informal-sector

42 Dariem, N. (2024, October 14th). NITDA, FME Partner to Advance Digital Literacy Curriculum in Nigeria. https://von.gov.ng/nitda-fme-partner-to-advance-digital-literacy-curriculum-in-nigeria/

In April 2024, NITDA entered into a partnership with the Nigeria Identity Management Commission (NIMC) to set up a technical working group to address the challenges facing the implementation and harmonisation of the three core components of DPI – identity management, payment systems, and data exchange – in the country. The mandate of the working group also includes developing a framework for improving the existing Public Key Infrastructure (PKI) and enhancing the country's capacity to achieve its goal of increased digitisation in the delivery of public services, a core aspect of FMCIDE's performance metric on DPI and NITDA's STAR 2,0[44].

Another key focus of FMCIDE since Minister Bosun Tijani assumed office is Artificial Intelligence, which has seen an increased level of commitment[45] In August 2023, the Ministry released a draft of the National Artificial Intelligence Strategy (NAIS) for the country, developed by an assembly of over 120 AI researchers of Nigerian descent during the National AI Strategy Workshop [46] [47]. The policy defined the country's AI push within three frameworks: economic growth and competitiveness, social development and inclusion, and technological advancement and leadership. Before the launch of the policy draft, FMCIDE had made other critical moves to enhance AI innovation in the country. In October 2023, it launched the Nigeria Artificial Intelligence Research Scheme (NAIRS), a N225 million grant for 45 AI startups and researchers, awarding it to various initiatives applying AI to critical sectors like health,

43 Bilali, H. (2024, April 22nd). Nigeria Spearheads Digital Transformation with NITDA and NIMC Collaboration. WeareTech.Africa. https://www.wearetech.africa/en/fils-uk/news/nigeria-spearheads-digital-transformation-with-nitda-and-nimc-collaboration

44 FEDERAL MINISTRY OF COMMUNICATIONS, INNOVATION & DIGITAL ECONOMY. (2023, October). Accelerating our Collective Prosperity through Technical Efficiency. https://drive.google.com/file/d/1fFtsDMTWoMWd0TXAcTeSRlUfjbOXZNhN/view

45 Adebayo, A. (2024, September 9th). Africa's AI Ambitions: What to know about the AU continental strategy. Dataphyte. https://archive.dataphyte.com/latest-reports/africas-ai-ambitions-what-to-know-about-the-au-continental-strategy/

46 Federal Ministry of Communications, Innovation and digital Economy. (2024). National Artificial Intelligence Strategy. https://ncair.nitda.gov.ng/wp-content/uploads/2024/08/National-AI-Strategy_01082024-copy.pdf

47 Minister of Communications, Innovation & Digital Economy. (2024, April 3rd). Ministry's Artificial Intelligence Strategy Workshop to Attract 120 Experts from Across the World. https://fmcide.gov.ng/ministrys-artificial-intelligence-strategy-workshop-to-attract-120-experts-from-across-the-world/

agriculture and education[48] [49]. Similarly, in November 2023, FMCIDE, in partnership with the Ministry of Agriculture, launched the Fourth Industrial Revolution Technology Application (4IRTA) to provide support for ten startups to apply innovative solutions in AI, unmanned aerial vehicle (UAV), and Blockchain to the country's agriculture sector[50].

Challenges

The factors responsible for Nigeria's inability to achieve the level of outcome it set for its Digital Public Infrastructures are multidimensional. A major one is the current state of infrastructure required for DPIs to work effectively, and the wide digital divide in the country. Access to stable electricity supply remains low, almost half of the country's population don't have access to quality internet, and digital literacy remains a source of concern for policymakers – without these fundamentals, accessing existing DPIs will remain an uphill task for millions of citizens, thereby undermining their effectiveness and capacity to enhance the delivery of public service.

Closely related to this is the disconnect between existing DPIs and how policymakers have utilised them in the delivery of public services. For example, Nigeria's former Communications Minister, Isa Pantami, is credited with championing the linkage of NIN with SIMs, a critical move for linking DPIs in the country. At the time, Pantami, rightly, argued that doing this would improve the quality of the government's identity database, and specifically empower them with the ability to track bandits and terrorists.

48 Innovation Village. (2023, October 13th). Nigeria launches "AI Research Scheme" to drive innovation and digital progress. https://innovation-village.com/nigeria-launches-ai-research-scheme-to-drive-innovation-and-digital-progress/

49 Innovation Village. (2023, December 20th). Here are the 45 grantees for National AI Research Grant Scheme (NAIRS). https://innovation-village.com/here-are-the-45-grantees-for-national-ai-research-grant-scheme-nairs/#google_vignette

50 Minister of Communications, Innovation & Digital Economy. (n.d.). Fourth Industrial Revolution Technology Application. https://4irta.nitda.gov.ng/

However, a few months after leaving office, he mobilised the sum of 50 million naira for the payment of a ransom to secure the release of five sisters in Abuja, Nigeria's capital city. Nigerians considered Pantami's effort an implicit acknowledgement of the inability of a stronger digital identity database to combat security, thereby reinforcing the existing lack of trust that citizens have in the effectiveness of DPI initiatives[51].

Another challenge facing DPIs in Nigeria is the strength of their interoperability. While several policy plans have charted the course of the growth of DPIs in the country, a significant proportion of them were designed independently. As a result of this, we have multiple DPIs that are linked through patchwork. This lack of interoperability implies that it makes it difficult to share data and services across different MDAs, thereby reducing their overall efficiency and effectiveness. Even though the interoperability framework designed by NITDA has improved the state of this positively, there is still so much work that needs to be done.

To increase the effectiveness of existing DPIs and correct some of the challenges that currently exist, the draft of the National Digital Economy and E-Governance Act 2024 was launched in July. This Bill is the latest and most recent effort by the government to improve service delivery through DPIs. It mandates MDAs in the country to adopt the use of digital infrastructure for their activities. While this is commendable, the government must also address fundamental challenges like improving the quality of internet in the country and reducing the digital divide.

Equally, the interoperability of DPIs is non-negotiable. The linkage of DPIs should not be an afterthought. Specifically, the government must design a realistic roadmap to integrate all existing DPIs and, at the same time, be deliberate about the development of newer ones and their linkage to achieve optimum results.

51 Vanguard. (2024, January 16th). Nabeeha: Pantami under fire for raising N50m ransom for bandits. https://www.vanguardngr.com/2024/01/nabeeha-pantami-under-fire-for-raising-n50m-ransom-for-bandits/

Policy Recommendations

Against the background of these identified challenges, there are specific policy recommendations that the government and other stakeholders in Nigeria's DPI ecosystem must embrace to enhance its impact on public service delivery.

To start with, the government must invest in foundational infrastructure as a major priority. This shift is important because, without foundational infrastructure – access to reliable electricity, affordable quality internet, and basic digital skills – DPI efforts will remain significantly underutilised. To achieve this, the government must integrate digital access initiatives into broader national infrastructure development plans. The government should also increase the strength of its partnership with the private sector, particularly telecommunications companies and renewable energy providers, to fast-track last-mile connectivity projects and rural electrification programs. The scope and scale of existing digital literacy programs, like the Digital Nigeria initiative, should also be widened to target not just urban centres but marginalised rural populations as well, particularly women and youth.

Closely related to this is the need for the government to prioritise the restoration of public trust in DPIs. Trust is the cornerstone of any effective digital system. To rebuild this trust, the government must demonstrate the tangible benefits of DPI initiatives beyond registration and documentation. For example, showing how linked digital identities directly contribute to faster, more secure access to public welfare services, or how they have assisted in the successful prosecution of criminal activities will help shift public perception. Importantly, government officials and policymakers must avoid high-profile contradictions that suggest a disconnect between policy promises and actual realities. A case in point here is how former Communications Minister, Isa Panatami's payment of ransom to free a kidnapped person generated backlash, despite previously asserting that NIN-SIM linkage would help in tracking criminals.

Furthermore, the government must take active steps to strengthen interoperability across all DPIs systems. To achieve this, the National Information Technology Development Agency (NITDA) must go beyond issuing guidelines and invest in practical interoperability solutions, such as common APIs (Application Programming Interfaces), standardised data-sharing protocols, and shared digital identity frameworks across MDAs. The government should also institute mandatory interoperability assessments for all new and existing DPI projects, with clear timelines and compliance incentives, including budgetary advantages for MDAs that successfully integrate their systems.

Finally, a comprehensive national roadmap for DPI integration must be developed and publicly launched within the next fiscal year. This roadmap should clearly outline timelines for linking existing DPIs, define protocols for creating new ones, and set measurable targets for digital access and service delivery outcomes. It should also be developed in close consultation with a wide range of stakeholders, including civil society organisations, the private sector, digital governance experts, and end-users. Such inclusivity ensures that the roadmap reflects on-the-ground realities and garners the necessary buy-in for long-term success.

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