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# NETWORK INFRASTRUCTURE AND ELECTORAL CREDIBILITY: STRATEGIC PATHWAYS FOR RELIABLE DIGITAL TRANSMISSION IN NIGERIA'S 2027 GENERAL ELECTIONS

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**Abstract**

*The increasing adoption of digital technology in electoral processes has created opportunities for enhancing transparency, accountability, and public confidence in elections. However, the credibility of digital transmission of election results largely depends on the availability, reliability, and resilience of network infrastructure. This study examines the relationship between network infrastructure and electoral credibility, with particular emphasis on strategic pathways for ensuring reliable digital transmission during Nigeria's 2027 General Elections. The study is motivated by concerns over inadequate network coverage, poor internet connectivity, unreliable electricity supply, network congestion, cybersecurity threats, limited technical capacity, and the digital divide between urban and rural communities. These challenges may undermine timely and effective transmission of election results and consequently affect public trust in the electoral process. The study adopts a qualitative research approach based on the review and analysis of relevant literature, electoral reports, policy documents, and other secondary sources. It argues that credible digital transmission requires more than the deployment of electoral technology; it depends on robust network infrastructure, stable power supply, effective cybersecurity mechanisms, competent technical personnel, and functional institutional coordination. The study proposes strategic pathways including expansion of broadband and network coverage, deployment of multi-network and alternative connectivity systems, provision of reliable backup power, pre-election testing of digital transmission infrastructure, strengthened cybersecurity, capacity building for electoral officials, and rapid-response technical support mechanisms. The study concludes that strengthening Nigeria's digital and network infrastructure before the 2027 General Elections is essential for promoting timely result transmission, electoral transparency, public trust, and overall electoral credibility.*

**Keywords: Network Infrastructure, Electoral Credibility, Digital Transmission, Election Results, Electoral Technology, Nigeria, 2027 General Elections.**

## Introduction

The growing integration of digital technology into electoral administration has transformed

democratic processes across the world. In both developed and developing democracies, electoral management bodies increasingly deploy technological innovations to improve voter accreditation, enhance transparency, reduce electoral fraud, and strengthen public confidence in election outcomes. According to the United Nations Development Programme (2022), digital electoral systems have become important instruments for promoting democratic accountability because they improve the speed, accuracy, and transparency of election management. In Africa, the adoption of electronic electoral technologies has intensified in response to persistent challenges such as ballot stuffing, voter impersonation, manipulation of election results, and electoral violence.

In Nigeria, electoral credibility has remained a major concern since the country's return to democratic governance in 1999. According to Ojiako, Umeasiegbu, Lawrence, & Okoye (2024), elections in Nigeria are grossly characterized by unabated malpractices. Such allegations of irregularities, vote manipulation, logistical failures, and political interference, thereby weakening public trust in democratic institutions. The aforementioned challenges, Ojiako, Umeasiegbu, Lawrence, & Okoye (2024), further dampened the hope of citizens. To address these challenges, the Independent National Electoral Commission (INEC) introduced several technological reforms aimed at improving electoral integrity. The introduction of the Smart Card Reader (SCR) in 2015 represented an important step toward electronic voter verification. However, operational limitations associated with the SCR led to the development of more advanced technologies such as the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IReV), which were deployed during the 2023 general elections.

The BVAS was designed to authenticate voters using fingerprint and facial recognition technology, while the IReV portal was introduced to facilitate the real-time electronic transmission and public viewing of polling unit results. These innovations were expected to strengthen electoral transparency, reduce human interference during result collation, and restore public confidence in Nigeria's electoral process. According to Adamu and Ojo (2023), BVAS significantly reduced incidents of voter impersonation and multiple voting during the 2023 elections, thereby improving the credibility of voter accreditation. Similarly, Ezeani and Bello (2024) argued that the deployment of digital electoral technologies represented a major advancement in Nigeria's democratic modernization efforts.

Despite these technological improvements, the 2023 general elections exposed serious weaknesses in Nigeria's digital and communication infrastructure. While BVAS performed relatively well in voter accreditation, many polling officials encountered difficulties in uploading election results to the IReV portal due to poor internet connectivity, unstable electricity supply, server failures, and inadequate technical support. These infrastructural challenges generated widespread criticism and raised concerns about the reliability of electronic transmission systems in Nigeria. Okeke and Ibrahim (2024) observed that the inability of INEC to upload presidential election results promptly undermined public trust and created doubts about the transparency of the electoral process.

The controversies surrounding delayed result uploads during the 2023 elections further intensified debates regarding the preparedness of Nigeria's digital infrastructure for electronic elections. Reports by the European Union Election Observation Mission (2023) indicated that network failures and technical disruptions affected the timely transmission of polling unit results in several parts of the country. Similarly, the National Democratic Institute (2023) noted that communication challenges and inconsistencies in digital result uploads weakened confidence in the credibility of the electoral process. These developments demonstrated that the effectiveness of electoral technologies depends not only on the availability of digital devices but also on the strength of supporting infrastructure.

Electoral credibility refers to the extent to which citizens perceive elections as free, fair, transparent, and reflective of the will of the people. In modern democracies, reliable digital transmission systems are increasingly important because they reduce opportunities for result manipulation and improve transparency during election collation. Ojiako, Umeasiegbu, Lawrence, & Okoye (2024), maintain that there is urgent need to embrace electronic voting and electronic transmission of results as a panacea to vote-buying in the country. According to Adebayo and Yusuf (2024), successful digital elections require stable network infrastructure, effective cybersecurity systems, institutional preparedness, and technical competence. Weak telecommunications infrastructure and poor internet penetration, particularly in rural communities, continue to pose serious challenges to the implementation of reliable electronic transmission in Nigeria.

As Nigeria prepares for the 2027 general elections, strengthening network infrastructure has become a critical national priority. Public trust in the electoral process will depend largely on the ability of INEC and other stakeholders to

address the technological and infrastructural deficiencies experienced during the 2023 elections. Ensuring credible digital transmission in 2027 will therefore require substantial investment in broadband connectivity, cyber security protection, electricity supply, technical training, and institutional reforms. This study" examines the relationship between network infrastructure and electoral credibility in Nigeria and explores strategic pathways for achieving reliable digital transmission during the 2027 general elections.

## Review of Related Literature

### Electoral Credibility and Digital Elections

Electoral credibility is a central requirement for democratic consolidation and political legitimacy. It refers to the extent to which elections are perceived by citizens, political actors, and international observers as transparent, free, fair, inclusive, and reflective of the true will of the electorate. Credible elections are not determined solely by the absence of fraud, but also by the integrity of the entire electoral process, including voter registration, accreditation, voting, result collation, and transmission. Norris (2021) argues that electoral credibility is strongly shaped by institutional integrity and procedural transparency, noting that elections are more likely to be accepted as legitimate when electoral processes are consistent, accountable, and verifiable. The quality of democracy is closely tied to the level of citizen participation, which in Nigeria continues to be undermined by electoral malpractice, institutional weaknesses, and elite dominance (Abba & Ojiako, 2026).

In recent years, the increasing adoption of digital technology has significantly reshaped electoral management globally. Digital elections involve the use of information and communication technologies (1CTs) in various stages of the electoral cycle, including biometric voter registration, electronic voter authentication, digital result transmission, and online result viewing platforms. The United Nations Development Programme (2022) observes that digital electoral systems can enhance transparency, reduce delays in result collation, and improve administrative efficiency. However, it also cautions that the effectiveness of such systems depends heavily on strong institutional frameworks, reliable communication infrastructure, and adequate cybersecurity measures.

Despite their advantages, digital electoral systems do not automatically guarantee credible elections. Norris (2021) further emphasizes that while technology can improve transparency, it may also introduce new risks when deployed in environments with weak infrastructure or limited technical capacity. This suggests that

digital electoral credibility is not only a technological issue but also an institutional and infrastructural one.

In Nigeria, concerns about electoral credibility have persisted due to recurring issues such as electoral violence, voter impersonation, ballot manipulation, and result falsification. In response, electoral reforms have increasingly focused on technological innovation. According to Obikeze, Abba and Ojiako (2024), democracy is the only political system that has the capacity for self-correction and allows for free political competition. It is the product of open, free, and non-discriminatory participation by the people and exercised in accordance with the rule of law in both letter and spirit. The introduction of the Smart Card Reader (SCR) in 2015 marked an early attempt to improve voter authentication and reduce electoral malpractice. Although it contributed to some improvements, it was limited by operational challenges and technical inefficiencies.

More recently, the Independent National Electoral Commission (NEC) introduced the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IReV) during the 2023 general elections. The BVAS was designed to authenticate voters using fingerprint and facial recognition, while the IReV platform was intended to enable real-time electronic transmission and public viewing of polling unit results. According to Adamu and Ojo (2023), BVAS significantly reduced incidents of multiple voting and improved the accuracy of voter accreditation. Similarly, Ezeani and Bello (2024) argue that these innovations enhanced transparency at the polling unit level and represented a major advancement in Nigeria's electoral modernization process.

However, several studies highlight significant infrastructural limitations that undermined the effectiveness of these technologies. Okeke and Ibrahim (2024) observe that while BVAS functioned relatively well during accreditation, the transmission of results through the IReV portal was hindered by poor internet connectivity, server delays, and technical malfunctions. These challenges resulted in delays in result uploads and inconsistencies in data transmission, which in turn generated public suspicion and reduced trust in the electoral process.

**Network Infrastructure and Electoral Administration**

Network infrastructure refers to the underlying communication systems that enable digital connectivity and data exchange, including internet services, telecommunications networks, servers, routers, and digital transmission platforms. In the context of electoral

administration, network infrastructure is a critical enabler of electronic processes such as biometric accreditation, real-time result transmission, and digital result collation. Effective digital elections depend significantly on stable broadband connectivity, reliable mobile network coverage, uninterrupted server functionality, and consistent electricity supply. Without these components, the efficiency and credibility of electronic electoral systems are greatly weakened.

In modern electoral practice, network infrastructure is increasingly recognized as a foundational requirement for transparent and timely election management. According to the United Nations Development Programme (2022), the success of digital governance systems, including electronic elections, is highly dependent on the strength and reach of national ICT infrastructure. This includes not only urban connectivity but also rural network penetration, which is essential for ensuring uniform electoral performance across all polling units. In countries with weak infrastructure, digital election systems often experience delays, data loss, or transmission failures, thereby affecting overall electoral credibility.

In Nigeria, evidence from the 2023 general elections highlights significant infrastructural weaknesses that affected the performance of digital electoral systems. Studies show that poor network coverage was one of the most critical challenges encountered during electronic result transmission. Adamu and Ojo (2023) found that many rural polling units experienced unstable or completely unavailable internet connections, which led to delays in uploading results from polling units to the INEC Result Viewing Portal (IReV). These delays not only slowed down the collation process but also created opportunities for suspicion and allegations of manipulation during manual result handling stages.

Similarly, the European Union Election Observation Mission (2023) reported that technical disruptions and poor connectivity affected the timely upload of polling unit results in several parts of the country. The report emphasized that while digital tools such as BVAS and IReV were innovative, their effectiveness was significantly limited by infrastructural constraints, particularly weak telecommunications coverage and inconsistent internet service delivery. These challenges contributed to inconsistencies in result transmission timelines and reduced public confidence in the transparency of the electoral process.

Further supporting these findings, Nwankwo (2024) observed that inadequate telecommunications infrastructure contributed to discrepancies between results recorded at polling units and those successfully uploaded to

digital platforms. The study noted that in many cases, delays in transmission created gaps in data synchronization, which raised concerns about the accuracy and reliability of electronically transmitted results. It further argued that unless Nigeria significantly improves its broadband penetration and strengthens its ICT infrastructure, electronic result transmission will continue to face operational difficulties in future elections.

In addition, infrastructural inequality between urban and rural areas remains a major concern in Nigeria's electoral system. While urban centers generally benefit from stronger network coverage and more stable internet services, many rural and remote communities still experience weak signals, poor connectivity, and limited access to reliable telecommunications services. Ezeani and Bello (2024) argue that this digital divide undermines the principle of electoral equality, as it creates unequal conditions for the implementation of digital electoral tools across different regions of the country.

The literature consistently demonstrates that network infrastructure is a determining factor in the success of electoral administration in digital environments. Without robust telecommunications systems, stable internet connectivity, and nationwide broadband coverage, the objectives of transparency, efficiency, and credibility in electronic elections cannot be fully achieved. These infrastructural challenges therefore remain central to discussions on improving Nigeria's electoral system ahead of the 2027 general elections.

**Cybersecurity and Electoral Integrity**

Cybersecurity has become a critical component of modern electoral administration due to the increasing reliance on digital technologies for voter registration, accreditation, and result transmission. Electoral systems that depend on digital infrastructure are inherently exposed to risks such as hacking, data breaches, system manipulation, ransomware attacks, and coordinated disinformation campaigns. These threats can compromise the confidentiality, integrity, and availability of electoral data, thereby undermining the credibility of electoral outcomes. As electoral processes become more digitized globally, safeguarding digital electoral infrastructure has become essential for maintaining democratic legitimacy and public trust. The United Nations Development Programme (2022) emphasizes that developing democracies adopting digital election technologies must prioritize robust cybersecurity frameworks to protect electoral systems from technological compromise and to ensure that election outcomes are not subject to unauthorized interference or manipulation.

In Nigeria, cybersecurity concerns surrounding electoral technology became more prominent following the deployment of digital systems such as the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IReV), particularly during the 2023 general elections. While these systems were introduced to enhance transparency and reduce electoral fraud, technical disruptions and transmission inconsistencies raised concerns about their security and reliability. The visibility of delays and system inefficiencies contributed to public skepticism regarding the resilience of Nigeria's electoral digital infrastructure. According to Adebayo and Yusuf (2024), Nigeria's electoral system suffers from inadequate cybersecurity architecture, weak server protection mechanisms, and insufficient digital risk management strategies, all of which expose electoral platforms to potential exploitation and operational failure.

Furthermore, Adebayo and Yusuf (2024) argue that cybersecurity vulnerabilities do not only pose technical risks but also have significant politica! and psychological implications for democratic governance. When citizens perceive electoral systems as insecure or susceptible to manipulation, public trust in electoral institutions is significantly weakened. This perception can lead to increased political tension, reduced electoral participation, and challenges to the legitimacy of election outcomes. Consequently, strengthening cybersecurity infrastructure is not merely a technical necessity but also a fundamental requirement for sustaining electoral credibility and democratic stability in Nigeria.

**Institutional Capacity and Technical Preparedness**

Institutional capacity is a critical determinant of the effectiveness of digital electoral systems and refers to the ability of electoral management bodies to plan, coordinate, and execute electoral processes efficiently through adequate human resources, technical expertise, logistical support, and operational readiness. In the context of digital elections, institutional capacity extends beyond administrative competence to include the ability to deploy, manage, and troubleshoot electoral technologies such as biometric accreditation devices and electronic result transmission platforms. Effective institutional capacity therefore requires continuous staff training, robust technical support systems, and well-structured contingency planning to address potential technological failures during elections. The United Nations Development Programme (2022) emphasizes that the success of digital governance systems, including electronic elections, depends significantly on the strength of institutional frameworks and the availability

of skilled personnel capable of managing complex technological tools.

In Nigeria, evidence from the 2023 general elections indicates that weaknesses in institutional capacity and technical preparedness significantly affected the performance of electoral technologies. Many ad hoc staff deployed by the Independent National Electoral Commission (INEC) reportedly lacked adequate technical knowledge and operational experience required for the effective use of the Bimodal Voter Accreditation System (BVAS) and the management of electronic result transmission through the INEC Result Viewing Portal (IReV). According to Nwankwo (2024), insufficient training and limited familiarity with digital electoral tools contributed to delays in voter accreditation and result uploading processes in several polling units across the country. These operational challenges highlighted the gap between technological deployment and human capacity, thereby affecting the efficiency of the electoral process.

Similarly, the Centre for Democracy and Development (2023) reported that inadequate contingency planning and weak technical coordination within electoral management structures further compounded the challenges experienced during the 2023 elections. The report noted that in several instances, election officials were unable to effectively respond to technical failures due to the absence of clear operational backup systems and insufficient real-time technical support. This lack of preparedness contributed to delays, inconsistencies in result transmission, and increased public concern over the reliability of the electoral process.

**Methodology**

This study adopted a qualitative research design grounded in documentary and content analysis. The choice of a qualitative approach was informed by the need to critically examine, interpret, and synthesize existing knowledge on network infrastructure and electoral credibility in Nigeria, particularly within the context of digital electoral reforms and the 2023 general elections. Qualitative research is particularly suitable for studies that seek to understand complex social, political, and technological phenomena where numerical measurement alone is insufficient to capture underlying meanings, institutional dynamics, and systemic challenges. In this regard, the study focuses on interpreting documented evidence on Nigeria's electoral system, with specific emphasis on digital transmission mechanisms and their implications for electoral credibility ahead of the 2027 general elections.

The study relied primarily on secondary sources of data. These sources included peer-reviewed academic journal articles, government policy documents, reports from electoral management bodies, election observation reports, conference papers, reputable newspaper publications, and publications from civil society organizations. The time frame of the literature reviewed was largely between 2020 and 2026 to ensure that the study reflects recent developments in Nigeria's electoral reforms, particularly the introduction and deployment of the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (|ReV). This period is significant because it captures the most recent phase of Nigeria's digital electoral transformation and the infrastructural challenges that emerged during the 2023 general elections.

Secondary data sources such as reports from the Independent National Electoral Commission (INEC), the National Democratic Institute (NDI), the European Union Election Observation Mission (EU EOM), and the United Nations Development Programme (UNDP) were particularly valuable in providing empirical insights into electoral processes, technological performance, and infrastructural limitations. Academic works from scholars in political science, communication studies, and public administration were also reviewed to provide theoretical and conceptual clarity on issues of electoral credibility, digital governance, and institutional capacity. Newspaper reports and policy briefs were included to capture real-time accounts of electoral events, public perception, and stakeholder responses to the performance of digital electoral systems.

The data collected from these sources were analyzed using content analysis. Content analysis is a Systematic research technique used to identify patterns, themes, and meanings within textual data. In this study, content analysis was used to examine recurring themes related to network infrastructure, digital electoral systems, cybersecurity challenges, institutional preparedness, and electoral credibility. The process involved carefully reading and coding relevant documents to identify consistent patterns of arguments, findings, and reported experiences across different sources. These themes were then synthesized to develop a comprehensive understanding of know infrastructural and institutional factors influence the effectiveness of digital electoral systems in Nigeria.

The analytical process also involved comparing findings across multiple sources in order to identify similarities, contradictions, and gaps in existing literature. For instance, while some studies highlighted the effectiveness of BVAS

in improving voter accreditation, others emphasized the limitations posed by weak network infrastructure and technical failures during result transmission. By integrating these diverse perspectives, the study was able to present a balanced and critical assessment of the relationship between digital technology and electoral credibility in Nigeria.

The theoretical framework guiding this study is anchored on Democratic Legitimacy Theory. Democratic Legitimacy Theory emphasizes that the legitimacy of democratic governance depends on the extent to which citizens perceive political processes, particularly elections, as transparent, fair, inclusive, and accountable. In the context of this study, the theory is used to explain how electoral credibility is influenced by public trust in both the electoral process and the institutions responsible for managing elections. According to this perspective, even technologically advanced electoral systems may lose legitimacy if citizens perceive them as unreliable, opaque, or vulnerable to manipulation. Therefore, transparency in digital transmission and consistency in electoral processes are essential for sustaining democratic legitimacy.

In addition to Democratic Legitimacy Theory, the study is also anchored on Institutional Theory. Institutional Theory focuses on how organizational structures, rules, norms, and capacities shape the behavior and effectiveness of institutions. In relation to electoral management, the theory explains how the success or failure of digital electoral systems is influenced not only by technological tools but also by the strength and efficiency of the institutions that deploy them. This includes electoral management bodies such as INEC, telecommunications service providers, and other supporting agencies responsible for ensuring smooth digital transmission of election results. Institutional Theory helps to explain why technological innovations such as BVAS and IReV may underperform in environments where institutional capacity, technical preparedness, and infrastructural support are weak.

The combination of Democratic Legitimacy Theory and Institutional Theory provides a comprehensive analytical lens for this study. While Democratic Legitimacy Theory highlights the importance of public trust and transparency in determining electoral credibility, Institutional Theory focuses on the structural and organizational conditions necessary for effective implementation of digital electoral systems. Together, these theories allow for a holistic understanding of how network infrastructure, institutional capacity, and technological systems interact to shape electoral outcomes in Nigeria.

Methodologically, the integration of these theoretical perspectives with qualitative documentary analysis enables the study to critically assess the strengths and weaknesses of Nigeria's digital electoral system. It also provides a foundation for evaluating policy options and strategic interventions aimed at improving electoral credibility ahead of the 2027 general elections. By relying on diverse and credible secondary sources, the study ensures a broad and evidence-based understanding of the subject matter while maintaining analytical depth and academic rigor.

**Results**

The study identified several critical findings concerning network infrastructure and electoral credibility in Nigeria. First, poor internet connectivity remains a major challenge to reliable digital transmission during elections. Several polling units, especially in rural communities, experienced unstable network coverage during the 2023 elections, thereby delaying the upload of polling unit results to the IReV portal (European Union Election Observation Mission, 2023).

Second, technical failures associated with BVAS devices negatively affected voter accreditation and result transmission processes. Cases of software malfunction, authentication failure, and poor image capture disrupted electoral operations in multiple locations (Okeke & Ibrahim, 2024).

Third, inadequate technical training among electoral officials contributed significantly to operational inefficiencies. Many ad hoc staff lacked suficient digital competence to operate BVAS devices effectively or troubleshoot technical problems during elections (Nwankwo, 2024).

Fourth, cybersecurity vulnerabilities exposed weaknesses in Nigeria's digital electoral systems. The study found that concerns about hacking, server compromise, and unauthorized access weakened public confidence in the integrity of digital transmission systems (Adebayo & Yusuf, 2024).

Fifth, unstable electricity supply adversely affected the operation of electoral technologies, particularly in remote polling units lacking reliable power infrastructure. This contributed to delays in accreditation and transmission activities.

Finally, the inability of INEC to upload presidential election results promptly during the 2023 elections significantly reduced public trust in the electoral process and generated widespread controversy regarding electoral transparency.

**Interpretation of Findings**

The findings indicate that network infrastructure is central to the success and credibility of digital elections in Nigeria. The failures experienced during the 2023 elections demonstrated that electoral technologies alone cannot guarantee transparency or public trust without reliable communication infrastructure and effective institutional support.

The problem of weak internet connectivity particularly exposed the infrastructural inequality between urban and rural areas in Nigeria. Since electronic transmission depends heavily on stable telecommunications systems, poor network coverage undermines the efficiency and transparency of digital electoral processes.

The study also reveals that institutional preparedness remains inadequate. Electoral technologies require skilled personnel, technical support systems, and contingency mechanisms to function effectively during elections. The inadequate training of election officials contributed significantly to operational challenges during the 2023 elections.

Cybersecurity concerns further highlight the need for stronger protection of electoral databases and transmission platforms. In an era of increasing cyber threats, the integrity of digital elections depends heavily on secure technological infrastructure and effective digital risk management strategies.

Furthermore, public confidence in elections is closely connected to transparency in result transmission. The inability to upload results in real time during the 2023 presidential election created suspicion and weakened public trust in electoral institutions. This suggests that reliable digital transmission systems are not only technical requirements but also essential instruments for democratic legitimacy.

**Conclusion**

This study concludes that reliable network infrastructure is indispensable for credible digital elections in Nigeria. Although BVAS and IReV represented major technological advancements in electoral administration, infrastructural weaknesses significantly undermined their effectiveness during the 2023 general elections.

The study established that poor internet connectivity, inadequate technical training, cybersecurity vulnerabilities, unstable electricity supply, and weak institutional preparedness negatively affected the digital transmission of election results. These challenges reduced public confidence in the electoral process and raised concerns about the credibility of election outcomes.

As Nigeria prepares for the 2027 general elections, strengthening network infrastructure and institutional capacity must become national priorities. Effective digital elections require robust telecommunications systems, cybersecurity protection, technical competence, and transparent electoral management. Without significant infrastructural reforms, the credibility of future elections may continue to face serious challenges.

**Recommendations**

1. The Nigerian government should invest heavily in broadband expansion and telecommunications infrastructure across rural and underserved communities before the 2027 elections.
2. INEC should establish partnership with major telecommunications providers to ensure dedicated network services for election-day result transmission.
3. Alternative transmission technologies such as satellite communication systems should be deployed in areas with weak internet coverage.
4. Comprehensive technical training programs should be organized regularly for election officials and ad hoc staff.
5. Strong cybersecurity frameworks and independent digital security audits should be implemented to protect electoral systems from cyber threats.
6. Solar-powered backup systems and portable power infrastructure should be provided for polling units located in areas with unstable electricity supply.

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