



EDO STATE DIGITAL POLICY

ABRIDGED



Content

EXECUTIVE SUMMARY	3
BACKGROUND	4
01 Edo State ICT Policy	6
02 Edo State E-Government Masterplan (EMGP) and Roadmap	17
03 Edo State E-Government Interoperability Framework	22
04 Edo State Outsourcing Strategy	24
05 Guidelines For The Clearance Of Information Technology (IT) Projects By Public Institutions	29
06 Guidelines For Local Content Development In ICT In The Edo State Public Sector	32
07 Guidelines For The Management Of Personal Data By Public Institutions	34
08 Guidelines For The Registration Of ICT Service Providers To Public Institutions	37
09 Edo Digital Economy Framework Policy Framework	40
10 Edo State Cybersecurity Strategy	43

Executive Summary

The Edo State Digital Policy is designed to transform service delivery and inclusivity by harnessing the power of Information and Communication Technology (ICT). This policy addresses the global transition towards technology-driven governance, focusing on reducing bureaucracy, enhancing accessibility, and fostering economic growth. It emphasizes principles of access, inclusivity, digital rights, cybersecurity, and sustainability.

Key sectors include public service, education, healthcare, justice, agriculture, transportation, procurement, residency identification, and revenue generation. Strategies involve deploying efficient, user-centered digital platforms, improving technology-based education via the EdoBEST program, and enhancing healthcare through the eClinic system. The justice sector will benefit from digital infrastructure and improved legal processes, while the agriculture sector will leverage a comprehensive farmers' database for data-driven decisions. E-ticketing will modernize transportation, and electronic procurement will increase efficiency and transparency.

The policy also emphasizes the development of a biometric residency card to improve planning and outreach, and the digitization of revenue collection to enhance financial inclusivity. Cross-cutting issues such as big data, open data platforms, cybersecurity, data protection, and ethical AI deployment are addressed to ensure comprehensive digital governance.

Implementation will be overseen by governing structures mobilizing resources from various stakeholders, ensuring collaboration for successful execution. The policy aims to create a cohesive, inclusive, and sustainable digital ecosystem, driving growth and improving residents' quality of life. Through institutionalizing these strategies, Edo State positions itself as a forward-thinking entity, harnessing ICT for comprehensive development and governance.



Background

Edo State is on a transformative journey to enhance its digital ecosystem, where various Ministries, Departments, and Agencies (MDAs) are crucially shaping a unified digital and data service environment. The evolution of this ecosystem necessitates alignment, collaboration, and coordination among digital government entities to establish a robust and mature digital governance framework. Extending digital policy governance to a wider range of high and mid-level government stakeholders is essential, alongside adopting an ecosystem approach to foster collaboration.

Key MDAs facilitating digital and data capabilities in Edo State, include:

- Ministry of Digital Economy, Science and Technology (MDEST)
- Information and Communication Technology Agency (ICTA)
- Edo Digital Governance and Data Management Agency (DiDA)
- John Oyegun Public Service Academy (JOOPSA)
- Edo Innovates

Digital policy leadership and collaboration are pivotal for the successful institutionalization of digital transformation policies. Establishing a governance structure that is inclusive, accountable, and reflective of Edo State's policy-making and implementation framework is fundamental to advancing the state's digital ecosystem. The leadership within this ecosystem is defined by institutional roles and mandates, specifying responsibilities and accountability.

Digital Policy Leadership and Governance Framework:

Ministry of Digital Economy, Science and Technology (MDEST)

Supporting MDAs: ICTA, Edo DiDA, Edo Innovates, and ESBS

- Develops and implements digital and data policies and regulations.
- Coordinates the digital government agenda and the implementation of digital policies across all MDAs in Edo State.
- Ensures inter-institutional collaboration and collective decision-making for digital policies.

Information and Communication Technology Agency (ICTA)

- Leads the deployment of robust infrastructure to enhance broadband penetration and maintain the state's data center.
- Provides hardware and software infrastructures for digital government services and ensures compliance with policies regarding their use and procurement.

Edo Digital Governance and Data Management Agency (DiDA)

Supporting MDA: ICTA

- Leads data processing and analytics for government decision-making.
- Develops prototype digital and data services and establishes standards for digital service delivery.

John Oyegun Public Service Academy (JOOPSA):

- Enhances the digital capability of government officials through various levels of digital skills training.
- Collaborates with ecosystem partners to develop specialized training curricula and issue certificates.

Edo Innovates:

- Develops a vibrant digital ecosystem supporting innovation and MSMEs.
- Supports startups and tech hubs, producing highly skilled ICT talents in Edo State.

Digital Policy Institutionalization:

Institutionalizing digital policy is critical for achieving digital transformation in Edo State. The digital policy ensures an integrated and sustainable digital ecosystem that promotes growth and capabilities. The establishment of Policy Action Teams (PAT) and Policy Champions (PCs) is vital for this process.

Policy Action Team (PAT):

PAT provides strategic direction, approves digital policies and strategies, and ensures alignment with state development goals. It facilitates inter-sectoral coordination and public-private partnerships. The PAT is divided into two groups:

1. Core digital ecosystem players, including MDEST, ICTA, Edo DiDA, and Edo Innovates/Edo Jobs.
2. A broader group including private sector members, CSOs, and representatives of marginalized groups, ensuring collaboration, inclusion, and transparency.

Policy Champions (PCs):

PCs, consisting of mid-level government and private sector stakeholders, advocate for digital policy implementation and facilitate communication and advocacy within their respective MDAs.

This framework aims to institutionalize digital policy across critical sectors, ensuring a cohesive, inclusive, and sustainable digital ecosystem in Edo State.

1

Edo State ICT Policy



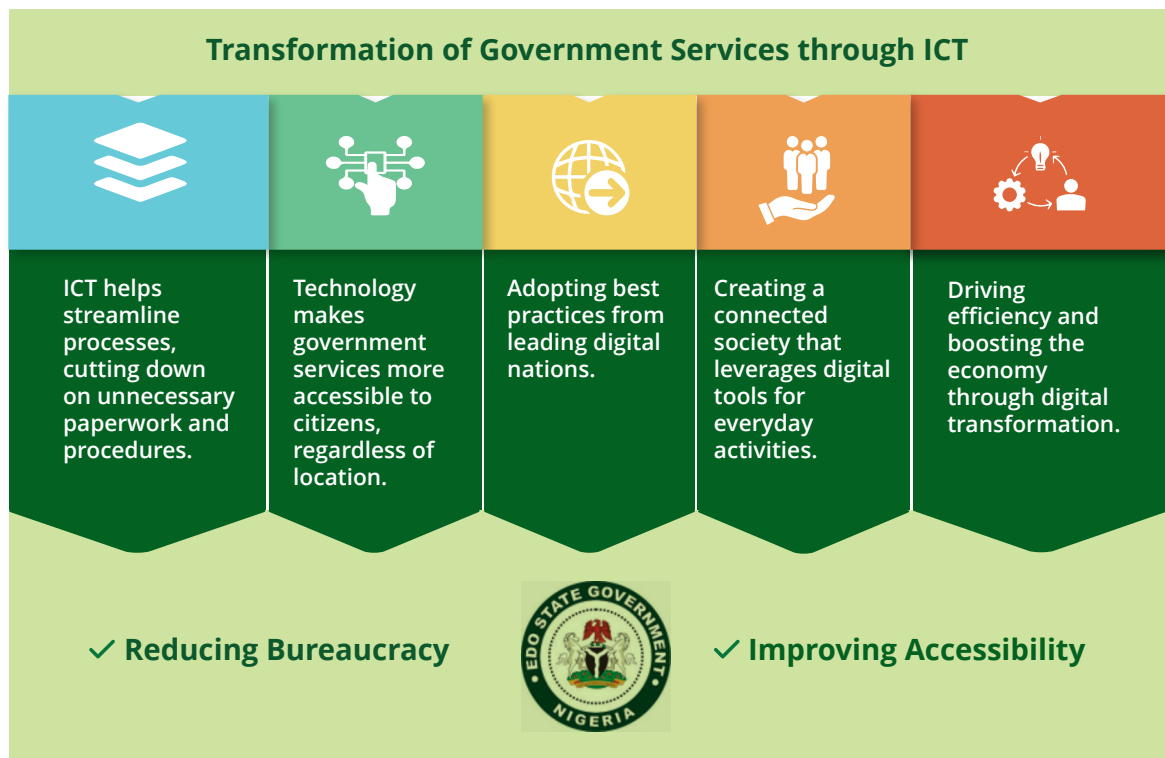
1.1 The Aim of the ICT Policy:

This policy aims to enhance service delivery and inclusivity for Edo residents using Information and Communication Technology (ICT). It recognizes the global shift towards technology-driven governance and economy and emphasizes the importance of ICT policies in driving progress.

1.2 Rationale and Guiding Principles:

ABC of Information Communication Technology in Governance:

ICT has transformed how governments provide services by reducing bureaucracy and improving accessibility. The framework is inspired by leading countries like Estonia and Singapore, aiming to create a digitally enabled society for productivity and drive positive economic outcomes.





1.2.1 Guiding Principles:

The framework is guided by principles such as access and inclusivity, digital rights, cybersecurity, and sustainability. It promotes equitable access to ICT services, protection of digital rights, and fostering innovation while ensuring security and environmental responsibility.



1.3 Information and Communication Technology Infrastructure:

The framework focuses on expanding ICT infrastructure across Edo State, including fiber optic networks, to improve internet connectivity and human capital development. It also emphasizes energy efficiency and modern tools for efficient ICT service management.



1.3.1 Policy Objectives:

The objective is to provide inclusive access to ICT services for all Edo residents, irrespective of their location, gender and identity. The framework aims to leverage ICT to improve service delivery, foster economic growth, and ensure equitable access for all residents, guided by principles of inclusivity, digital rights, cybersecurity, and sustainability.

Implementation strategies include enabling regulatory frameworks, streamlined processes, and collaborations to extend broadband coverage and ensure inclusivity.

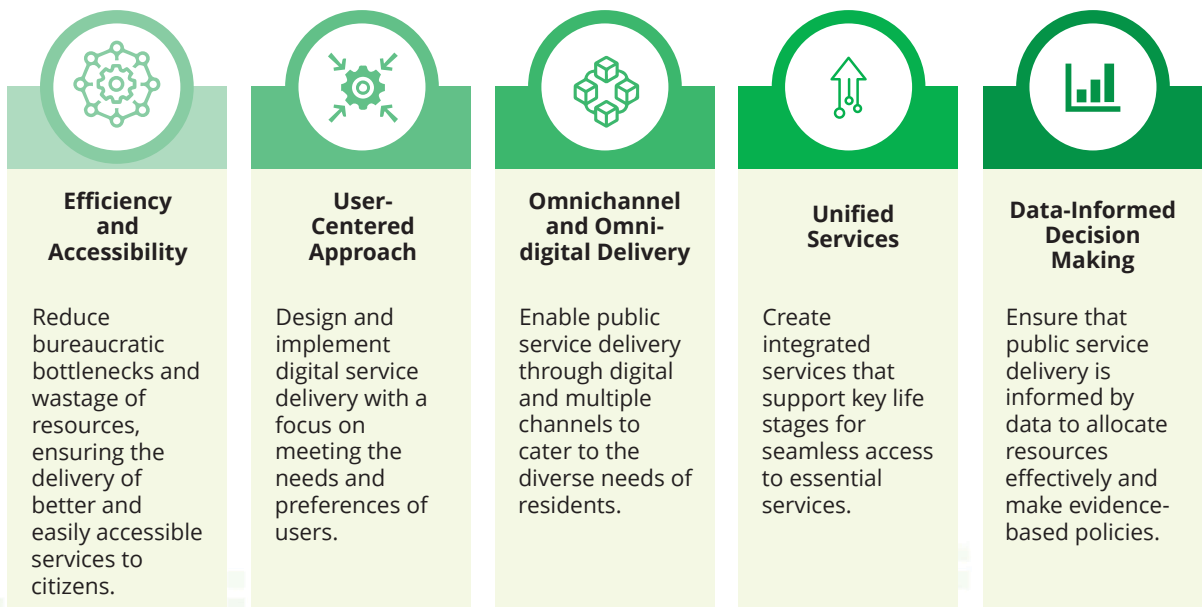


1.4 Service Platforms:

Edo State is embracing technology to revolutionize public service delivery, making services more efficient, accessible, and citizen-centric. By leveraging digital platforms, the state is engaging residents effectively and ensuring data-driven decision-making for better resource allocation.

Policy Objectives:

The policy aims to reduce turnaround time and resource wastage in government activities, integrate a user-centered approach in digital service delivery, enable omnichannel and omni-digital public service delivery, create unified services supporting key life stages, and ensure data-driven public service. The objectives are summarized into five:





1.4.1 Government Administrative Processes:

Edo State is enhancing efficiency in public services by implementing Enterprise Resource Planning (ERP) applications. These digital platforms streamline internal processes, reduce redundancy, and increase transparency and accountability within the Civil and Public Service.



1.4.2 Education:

The **EdoBEST** program is transforming education by providing a technology-based learning environment that ensures equal opportunities for all students. Infrastructure development, digital content, teacher training, data security, and monitoring are key strategies for successful implementation.

Implementation Strategies:

- Assess existing ICT infrastructure and improve it.
- Partner with technology providers and agencies for funding.
- Roll out infrastructure upgrades in phases prioritizing underserved areas.
- Provide technical training to staff for maintaining ICT infrastructure.
- Develop digital content aligned with the curriculum and provide teacher training.
- Establish peer learning mechanisms and continuous feedback loops.
- Implement data security measures and conduct regular audits.
- Monitor student usage of digital resources and analyze data for improvement.



1.4.3 Health:

The collaboration between eClat Healthcare and the Edo State Government through the eClinic health management system aims to enhance healthcare delivery. Data security, telemedicine, technical support, disaster recovery, and ethical data use are critical aspects of this initiative.

Implementation Strategies:

- Invest in robust security infrastructure for patient data protection.
- Provide training to healthcare professionals on cybersecurity.
- Utilize encrypted communication platforms for telemedicine.
- Offer 24/7 technical support and implement patch management.
- Establish disaster recovery plans and redundant systems.
- Develop clear data usage and sharing policies.
- Ensure transparency and consent in data management.
- Validate data accuracy and maintain its integrity.
- Conduct cybersecurity training and threat intelligence.
- Design a user-friendly interface and support local languages.
- Monitor database activities and conduct regular audits.
- Collaborate with research institutions and stakeholders.
- Review policies periodically and involve stakeholders in decision-making.



1.4.4 Digital Justice:

The introduction of ICT in Edo State's Ministry of Justice aims to provide quick and equitable access to justice. Policies focus on digital infrastructure, literacy, data management, e-filing, cybersecurity, ethics, and collaboration to modernize legal processes.

Implementation Strategies:

- Ensure reliable internet connectivity and provide digital devices.
- Conduct training programs for staff on digital literacy and legal tech.
- Implement robust data management systems and e-filing.
- Create online legal resources and promote cybersecurity.
- Establish ethical guidelines for digital tools and technologies.
- Integrate legal tech solutions and ensure data privacy.
- Provide user support and facilitate feedback mechanisms.
- Involve the public in accessing legal services and information.
- Explore technology for legal aid services and partnerships.
- Utilize data analytics for decision-making and policy development.
- Develop legislation and policies consistent with emerging technologies.
- Establish a user support system and review policies regularly.



1.4.5 Agriculture:

Edo State's comprehensive farmers' database enhances data-driven decision-making in agriculture. Policies prioritize data security, consent, transparency, quality, cybersecurity, accessibility, monitoring, collaboration, and policy review for a resilient and inclusive agricultural sector.

Implementation Strategies:

- Provide training on data security protocols and conduct audits.
- Establish authorization protocols and consent management.
- Ensure transparency in data usage and regular updates.
- Invest in cybersecurity training and threat intelligence.
- Design a user-friendly interface and support local languages.
- Implement real-time monitoring tools and conduct audits.
- Collaborate with research institutions and stakeholders.
- Review policies periodically and involve stakeholders in decision-making.



1.4.6 Transport - E-ticketing:

Implementing e-ticketing in Edo State's transportation sector represents a significant leap towards modernization and efficiency. By transitioning from traditional paper-based ticketing to advanced electronic systems, the state aims to enhance the overall travel experience for passengers, streamline operations, and contribute to the digital transformation in the transportation sector.

Implementation strategies:

- Ensure data protection and privacy
- Enhance ticketing security and fraud prevention
- Establish secure financial transaction processes,
- Provide robust customer support, promoting interoperability and integration among different transport providers
- Ensure accessibility and inclusivity, maintaining regulatory compliance and oversight,
- Enforce penalties for policy violations
- Foster continuous improvement and innovation in the e-ticketing system.



1.4.7 E-Procurement:

The transition from paper-based to electronic procurement in Edo State involves systematic change management and capacity building within the public procurement agency and other government entities.

Implementation Strategies:

- Educate users about the e-procurement platform
- Ensure data security and privacy
- Streamline vendor registration and verification processes
- Standardize procurement procedures
- Emphasize user accountability and responsibility
- Facilitate compliance and audits, monitoring vendor performance, providing continuous capacity building and training, ensuring disaster recovery and business continuity, e
- Engage stakeholders and gathering feedback for continuous improvement.



1.4.8 Identity Residency Card:

The Edo Residency Card aims to capture residents' biometrics for planning and citizen outreach purposes while ensuring data privacy and security.

Implementation strategies:

- Training employees on data privacy principles
- Conduct privacy impact assessments
- Perform regular security audits
- Develop robust incident response plans
- Updating biometric technology
- Engage communities to raise awareness about the program
- Providing user-friendly information to residents
- Implement automated data retention and deletion protocols
- Establish accessible channels for complaints and grievances
- Collaborate with regulatory authorities, ensuring disaster recovery and business



continuity, promoting ethical use and non-discrimination, and continuously monitoring and improving the program.



1.4.9 Revenue Generation:

The goal is to enhance revenue generation in Edo State through efficient and effective digital platforms. These implementation strategies aim to digitize revenue collection processes, increase efficiency, and promote financial inclusivity in the state:

- Digitizing taxation processes
- Providing e-government services
- Leveraging data analytics for informed decision-making
- Promoting digital financial literacy
- Partnering with fintech companies for secure digital payment solutions
- Exploring blockchain technology for transparent transactions
- Ensuring cybersecurity and data protection
- Digitally transforming revenue collection agencies
- Fostering public-private partnerships, and
- Establishing user feedback mechanisms for continuous improvement.



1.5 Cross-cutting Issues:

a. Big Data:

The utilization of big data holds immense potential for transforming governance and service delivery in Edo State. To effectively harness the power of big data, the state adopts a multi-faceted approach encompassing data governance, quality assurance, security, and analytics.

Implementation Strategies:

- **Data Governance Framework:** Create a framework covering roles, responsibilities, and procedures for managing large citizens' datasets, including data stewardship, ownership, and policies for collection, storage, access, and utilization.
- **Data Quality and Cleaning:** Implement processes to maintain the accuracy and reliability of data through regular cleaning and validation procedures.
 - **Data Security & Privacy:** Adhere to stringent data protection guidelines to safeguard sensitive information and ensure compliance with relevant regulations.
 - **Data Analytics and Insight:** Develop advanced analytics capabilities to derive actionable insights from big data, promoting data-driven decision-making across government departments.

b. Open Data Platform:

Edo State recognizes the importance of transparency and accessibility in government data. By adopting an open data platform, the state aims to promote accountability and empower citizens through easy access to government datasets.

Implementation Strategies:

- **Data Access and Usage Policy:** Establish principles for open data access while ensuring responsible usage and adherence to legal and ethical standards.
- **Data Privacy and Anonymization Policy:** Implement measures to protect individual privacy while making datasets publicly accessible, including anonymization techniques and compliance with data protection laws.
- **Data Quality and Accuracy Policy:** Define standards for data collection and validation to maintain the integrity and reliability of datasets.
- **Data Licensing and Attribution Policy:** Specify licensing terms and attribution requirements to govern the use of open data, promoting transparency and accountability.
- **Security and Access Control Policy:** Implement robust security measures to safeguard data and restrict access to authorized users.
- **Data Publishing and Update Policy:** Establish procedures for regularly updating and releasing datasets to ensure currency and relevance.
- **Metadata and Documentation Policy:** Provide comprehensive metadata and user documentation to enhance understanding and usability of datasets.
- **Feedback and Improvement Policy:** Solicit user feedback to drive iterative improvements to the open data platform, fostering community engagement and ownership.

c. Cybersecurity:

Edo State prioritizes cybersecurity to safeguard government systems and data against evolving threats. Implementation strategies align with state and national laws to ensure robust protection measures.

d. Data Protection and Privacy:

Aligned with cybersecurity guidelines and legal frameworks, Edo State implements measures to protect the confidentiality and integrity of data, safeguarding the privacy rights of citizens.



e. Artificial Intelligence:

In embracing artificial intelligence, Edo State emphasizes ethical principles, data privacy, transparency, and accountability to ensure responsible AI deployment across government functions.

Implementation Strategies:

- **Ethical AI Policy:** Establish ethical principles for AI development and deployment, emphasizing fairness, transparency, and accountability.
- **Data Privacy and Security Policy:** Ensure compliance with data protection laws and implement secure data handling practices in AI systems.
- **Transparency:** Mandate clear explanations of AI decisions and enable auditing to ensure transparency and accountability.
- **Accountability and Liability Policy:** Define mechanisms to hold stakeholders accountable for AI outcomes and establish liability guidelines.

- **Public Engagement and Consultation Policy:** Involve citizens in AI policy discussions and provide channels for feedback and concerns.
- **Education and Workforce Development Policy:** Invest in AI education and training programs to equip the workforce with necessary skills.
- **AI in Governance Policy:** Evaluate AI use cases in governance and promote interdepartmental collaboration.
- **Ethical Use of AI in Law Enforcement:** Establish guidelines for ethical AI use in law enforcement to prevent biases and protect civil liberties.
- **Accessibility and Inclusivity Policy:** Ensure AI systems are inclusive and accessible to all citizens, promoting equal access to services.
- **International Collaboration and Standards:** Engage in international collaborations and adhere to global ethical guidelines and standards for AI.



1.6 Skills and Internal Capability Development:

1.6.1 Information and Technology Agency (ICTA):

1. Governance:

Ensuring effective leadership and organizational structure to drive ICT initiatives within the state.

Implementation Strategies:

- **Leadership Training:** Equip agency leaders with the necessary skills to implement governance policies effectively.
- **Regular Review:** Periodically assess the organizational structure to ensure alignment with agency goals.
- **Procurement and Adoption of ICT Tools:** Oversee and approve the procurement and adoption of all ICT tools in the state.

2. Data Privacy and Protection:

Safeguarding data privacy and implementing protocols to protect sensitive information.

Implementation Strategies:

- **Data Protection Training:** Provide employees with training on data protection protocols and best practices.
- **Regular Audits:** Conduct routine audits to identify and address data privacy vulnerabilities.

3. Cybersecurity and Information Security:

Raising awareness about cybersecurity threats and ensuring readiness to respond to incidents.

Implementation Strategies:

- **Cybersecurity Awareness:** Educate staff about cybersecurity threats and best practices through training programs.
- **Incident Response Drills:** Conduct regular cybersecurity drills to test the effectiveness of incident response plans.

4. Ethical Conduct and Professionalism:

Promoting ethical behavior and professionalism among agency employees.

Implementation Strategies:

- **Code of Ethics Acknowledgment:** Require employees to adhere to the agency's code of ethics as part of their employment agreement.
- **Ethics Training:** Conduct training sessions to reinforce ethical behavior in the workplace.

5. Transparency and Accountability:

Maintaining transparency through public engagement and regular reporting.

Implementation Strategies:

- **Public Engagement:** Interact with the public through social media, town hall meetings, and consultations to ensure transparency.
- **Regular Reporting:** Publish reports summarizing agency activities, achievements, and financial statements.

6. Procurement and Vendor Management:

Ensuring accountability and performance evaluation of vendors.

Implementation Strategies:

- **Vendor Evaluation:** Assess vendor performance to ensure contractual obligations are met.
- **Regular Vendor Meetings:** Schedule periodic meetings with vendors to discuss performance and improvements.

7. Regulatory Compliance:

Adhering to relevant laws and regulations governing agency operations.

Implementation Strategies:

- **Compliance Officer:** Appoint a compliance officer to ensure adherence to legal requirements.
- **Legal Review:** Regularly review policies to ensure compliance with changing legal standards.

8. Capacity Building and Training:

Enhancing employee skills and knowledge through training programs.

Implementation Strategies:

- **Training Calendar:** Develop an annual training calendar for both internal and external sessions.
- **Certification Support:** Support employees in obtaining relevant certifications.

9. Public Engagement and Feedback:

Facilitating citizen feedback and analysis for continuous improvement.

Implementation Strategies:

- **Feedback Channels:** Establish user-friendly platforms for citizens to provide feedback.
- **Regular Analysis:** Analyse feedback data to identify trends and areas for improvement.

10. Continuous Improvement:

Regularly reviewing performance and updating policies based on emerging trends.

Implementation Strategies:

- **Performance Reviews:** Assess agency effectiveness through regular performance reviews.
- **Policy Updates:** Review and update policies annually to adapt to changes in technology and regulations.

11. Technology Integration:

Implementation Strategies:

- **Automation:** Implement automation tools for policy enforcement, compliance monitoring, and reporting.
- **Advanced Analytics:** Utilize advanced analytics to assess policy effectiveness, identify areas of improvement, and make data-driven decisions.

12. Crisis Management:

Implementation Strategies:

- **Crisis Simulation:** Conduct crisis simulation exercises to prepare the agency for potential emergencies, ensuring staff knows how to respond effectively.
- **Communication Protocols:** Establish clear communication protocols to disseminate information internally and externally during a crisis.

13. Collaboration and Partnerships:

Implementation Strategies:

- **Industry Collaboration:** Collaborate with other ICT agencies and industry associations to share best practices and stay updated on the latest trends.

- **Government Partnerships:** Foster partnerships with other government agencies to streamline processes and improve interdepartmental coordination.

14. John Odigie Oyegun Public Service Academy (JOOPSA):

Implementation Strategy:

- Collaborate with the Information Communication Technology Agency to develop curriculum for strengthening knowledge management and skills transfer within the Civil and Public Service.



1.7 Institutional and Implementation Strategy:

- Stakeholder Engagement/Collaboration.
- **Periodic Review on Implementation Roadmap:** Align with the state's technology strategy.
- **Implementation of Clear Roadmap on Skills Development:** Focus on internal capability building.
- **Periodic Review and Improvement on Policy:** Resourcing for implementation in line with the states' financial laws and regulations.
- **Implementation Strategy & Monitoring and Evaluation:**
 - **Establishment of Clear Objectives and Key Performance Indicators:** At MDA level.
 - **Integrate Data Collection and Measurement:** Drive analysis and reporting.
 - **Create a User Feedback Mechanism:** Ensure inclusive participation of users (staff of EDSG and the public).
 - **Foster a Culture of Continuous Improvement:** Utilize lessons learned from monitoring and evaluation to refine the policy.



1.8 Gender Equality and Social Inclusion (GESI) Consideration:

- Provision of Public Service Informed by Sex-disaggregated Data
- **Infrastructure Development:** Invest in and maintain a robust and reliable inclusive ICT infrastructure.
- **Implement Systems for Collecting Sex-disaggregated Data:** Monitor digital resource usage among students and farmers.
- **Establish Clear Governance Structures:** Ensure responsible and ethical use of gender-related data.
- **Enhance Data Practices:** Regularly assess and rectify biases or discriminatory effects.
- **Implement Robust Security Protocols:** Protect personal data and address vulnerabilities affecting people with disabilities.
- **Gather and Utilize Gender-segregated Data of Cybersecurity Personnel:** Gain insights into addressing cybersecurity needs inclusively.
- **Ensure Fair and Transparent e-Procurement Processes:** Utilize inclusive language and diverse communication channels.

2

Edo State E-Government Masterplan (EGMP) And Roadmap



2.1 Aim of the EGMP:

The E-Government Master Plan (EGMP) is designed to establish an integrated digital public infrastructure that facilitates seamless interaction between the government, private sector, and citizens. This initiative intends to monitor and evaluate digital transformation efforts to enhance public administration, promote transparency, and ensure cost-effective service delivery.



2.1.1 Objectives of the EGMP:

- **Minimizing Cost and Maximizing Resources:** Efficient delivery of government-enabled services while minimizing costs and maximizing resources.
- **Promoting Transparency:** Creating transparency in government operations and fostering healthy competition among government departments.
- **Transition to Integrated Systems:** Shifting from standalone software systems to integrated systems to achieve interoperability and create a citizen-centric civil service.



2.1.2 Gains from Digitalization of Governance:

- **Cost Reduction:** Digitally-enabled services reduce the cost of governance, streamline processes, and improve service delivery efficiency.
- **Transparency and Accountability:** E-Government services enhance collaboration between government and citizens, improving access to information and promoting open data sharing.
- **Economic Development:** Simplifying government-business interaction fosters a positive business climate and ensures compliance with regulatory requirements.
- **Improving Service Delivery:** Digitalization reduces bureaucratic bottlenecks, enhances access to government services, and improves turnaround times.
- **Enhancing Public Administration:** Digitalization enhances efficiency in public administration through initiatives like EdoGov, GFMS, and the Edo Residency Project.
- **Building an Open Government Society:** Digital feedback mechanisms enable responsive e-governance, facilitating citizen engagement and participation.



2.1.3 Key Headline Targets for the EGMP (2023 - 2028):

Targets include increasing computer adoption in government operations, connecting MDAs to EdoGov for efficiency, enhancing government websites, implementing paperless offices, delivering services through e-channels, and integrating citizen identification systems.

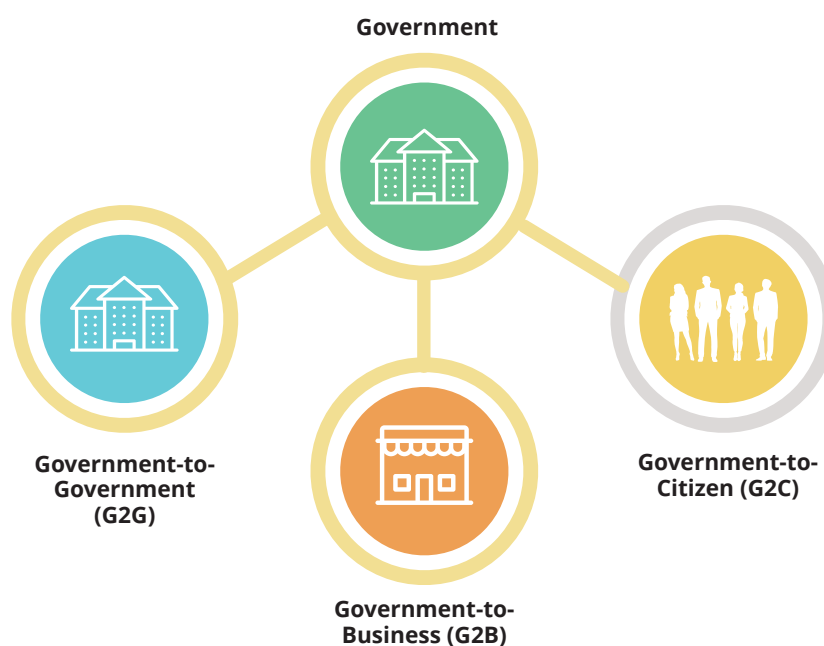


2.2 EGMP Building Blocks and Strategies:

The EGMP is structured around **three strategic pillars**. These pillars aim to create a secure e-government infrastructure, optimize government operations, drive data-driven governance, and enhance citizen engagement through digital platforms. They include:

- Building a Service-Oriented Government
- Digital Transformation of Government Services
- Improving Citizen Engagement through Civic Tech Platforms

The EGMP operates through **three service touchpoints** such as: **government-to-citizen (G2C)**, **government-to-business (G2B)**, and **government-to-government (G2G)**, all accessible via the Edo State OneGov platform. It offers secure ICT services for efficient public service delivery and reduces face-to-face interactions through digital platforms.



2.2.1 Components of the EGMP Building Blocks:

i. Infrastructure:

- **Edo Broadband Network (EBN) and Tier III Data Centre:** Provide connectivity and storage for governmental agencies, ensuring improved internet access and reduced costs.



ii. Edo State OneGov Platform:

- Acts as a centralized platform for accessing government services, promoting accessibility, citizen participation, and trust.

iii. Government Service Platform (GSP):

- Facilitates the transition to digitalized processes and serves as a gateway for accessing government-enabled services.

iv. Sectoral Applications and Platforms:

- Aligned with sectorial priorities, aims to improve ease of doing business, establish digital identity management systems, and enhance data sharing and interoperability.



2.2.2 Expected Outcomes from the EGMP 2022-2028:

i. Integration of Government Platforms:

- Establishment of the Edo OneGov platform as a unified entry point for government services, fostering cohesion among various digital platforms.

ii. Shared Infrastructure and Service Framework:

- Deployment of enterprise-level software across all MDAs, creating a standard framework for digital platform deployment.

iii. Culture of Collaboration and Information Sharing:

- Advocacy for collaboration and information sharing across government platforms, while prioritizing the protection of citizens' rights and privacy.



2.3 Strategic Pillar 1: Building a Service-Oriented Government to Optimise Operations:

2.3.1 Situation Analysis:

This aims to improve the response time for government services through transition from paper-based to paperless transactions. This transition is expected to reduce bureaucratic delays and accelerate service delivery to the public.

2.3.2 Focus Areas:

- **Edo OneGov** - A platform that offers personalized and comprehensive digital services to citizens, fostering government-to-citizen relations
- **Edo State Residency** - To provide digital identity to all residents, enabling data-driven decision making and unlocking social benefits for all Edo State citizens
- **Open software operational standards** - Establish open software operational standards to manage and administer applications and platforms used by

governmental agencies, ensuring interoperability, maintenance and prevent vendor lock-ins

- **Government Enterprise Architecture (GEA)** - Implement a GEA for integrating the registration and management of public sector information resources, utilizing shared infrastructure and software solutions as part of a comprehensive government-wide digitalization strategy.

2.3.3 Implementation Strategies:

- The OneGov Platform will contain but will not be limited to: building permits, taxes and levies, business premise registration, e-procurement, e-health services, online learning, land administration services, digital identity
- Achieve full deployment of EdoGov platform
- Achieve a complete digital identity implementation for Edo State residents
- Implement GEA services for shared infrastructure and shared software solutions



2.4 Strategic Pillar 2: Data-Driven Digital Transformation of Government Services:

Situation Analysis

This aims to transition Edo State Government's decision-making to a data-driven model. Progress includes deploying the Edo State Open Data Portal and sector-specific e-services like procurement and financial management systems.

2.4.1 Focus Areas:

- **Enhancing Online Services:** Improve web accessibility for all government agencies.
- **Technology Utilization:** Use tech to boost service delivery and productivity.
- **Decision Support Systems:** Implement data-driven decision-making tools.
- **API Commissioning:** Collaborate with the private sector for data sharing.
- **Workforce Capacity:** Enhance civil service skills for better service delivery.
- **Streamlining Transactions:** Simplify processes for licenses and permits.

2.4.2 Implementation Strategies:

- **Web Presence:** Ensure all MDAs have an online presence.
- **Digitalization:** Digitize at least one operation in each MDA.
- **Data Publication:** Increase data on the Open Data Portal for transparency.
- **ICT Skilled Workforce:** Train civil servants for digital interactions.



2.5 Strategic Pillar 3: Improving Citizen Engagement through Civic Tech Platforms to Achieve Greater Participation and Connection between Government and the Citizenry:

Pillar 3 aims to enhance citizen experience in accessing e-services through the Edo OneGov Platform. This includes G2C platforms for citizen engagement like open budgeting and procurement. The focus is on transparency and accountability, providing real-time data on budgeting and expenditure to promote participatory governance.

2.5.1 Focus Areas:

- **Insights for Better Services:** Use technology to improve citizen services and foster participation.
- **Accessible Digital Services:** Ensure easy access and efficiency in delivering digital public services.
- **OGP Participation:** Involve civil societies to strengthen Edo State's role in the Open Government Partnership.

2.5.2 Implementation Strategies:

- **Citizen Feedback Portal:** Establish a portal for citizen engagement and feedback.
- **Open Contracting Expansion:** Broaden open contracting platforms to provide procurement information to citizens.
- **Open Budgeting Implementation:** Engage citizens in the budget formulation process through open budgeting.

Strategic Pillars of the Edo State E-Government Masterplan And Roadmap



A Service-Oriented
Government



Data-Driven Digital
Transformation



Citizen Engagement
through Civic Tech
Platforms



3

Edo State E-Government Interoperability Framework



3.1 Purpose of the eGIF:

The e-Government Interoperability Framework (e-GIF) aims to establish universal standards for integrating government agencies digitally. It ensures that ICT systems meet minimum standards for sharing information efficiently across all government processes.

3.1.1 Core Principles:

- **Information Technology Standardization:** Standardizing IT acquisition to achieve a centralized digital standard and reduce IT deployment costs.
- **Process Integration:** Implementing a data standardization framework to integrate processes across governmental systems.
- **Efficient Public Service Delivery:** Identifying capacity-building requirements to ensure efficient public service delivery.

3.1.2 Objectives:

- Achieve interoperability across MDAs for seamless information sharing.
- Break down information dissemination barriers for intra-MDA flow.
- Establish citizen-centric platforms at minimal cost.
- Promote shared infrastructure and applications for efficiency and cost reduction.



3.2 Major Technical Standards:

- Adoption of open standards for web and internet technologies.
- Use of standard metadata for data interpretation and management.



3.3 Channels for Delivering e-GIF:

- **Common Service Centres:** Integrated service delivery centers.
- **Website/Portal:** Online platforms for communication.
- **Mobile Platforms:** Accessible services via mobile devices.
- **Government Call Centres:** Helplines for citizen support.

3.4 Technical Specifications:



Database: Adoption of Relational Database Management System (RDBMS) with ANSI standard SQL.



Operating Systems: Use of OS compliant with POSIX standards.



Network: Configuration based on TCP/IP protocols.



Hardware: Deployment based on POSIX compliant OS with standard interfaces.



Security: Measures for data encryption, digital signatures, and secure transmission protocols.

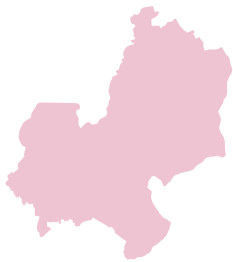


By adhering to eGIF standards, government agencies can achieve seamless digital integration, efficient service delivery, and enhanced citizen engagement

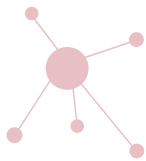


4

Edo State Outsourcing Strategy



Edo State is at the forefront of transitioning from a traditional resource-based economy to a dynamic knowledge-based economy. With a burgeoning population of over 5 million people, characterized by a youthful demographic with a median age of 18 years and a commendable literacy rate of 70%, Edo State possesses a valuable asset in its skilled and educated workforce. Leveraging this demographic dividend, Edo State aims to harness the potential of its youth to spearhead the development of the outsourcing sector. The Edo State Outsourcing Strategy is a visionary initiative designed to capitalize on this demographic advantage and propel the state towards economic diversification and sustainable growth.



4.1 Background:

Outsourcing has emerged as a pivotal strategy in today's global economy, allowing organizations to optimize their operations by subcontracting specific tasks or processes to **third-party service providers**. These services, which range from Information Communication Technology-Enabled Services (ITES) to Business Process Outsourcing (BPO) and Knowledge Process Outsourcing (KPO), can be conducted remotely and are facilitated by advancements in telecommunications and information technology. By strategically leveraging outsourcing, Edo State aims to tap into the immense potential of these service-oriented industries to drive economic expansion and job creation.



4.2 Rationale:

In response to the shifting dynamics of the global economy towards knowledge-based industries, Edo State recognizes the imperative of harnessing its abundant human capital and fostering a conducive environment for technological innovation and entrepreneurship. The Edo State Outsourcing Strategy is grounded in the belief that by positioning itself as a preferred global outsourcing destination, the state can not only attract significant investments but also catalyze the growth of its digital economy. By embracing this strategic vision, Edo State seeks to create a virtuous cycle of economic prosperity, job creation, and technological advancement that will propel it to the forefront of the digital revolution.



4.3 Challenges and Opportunities:

Despite the immense potential of the outsourcing sector, Edo State faces several challenges, including the need for adequate incentives to attract investment, addressing skill gaps in the workforce, ensuring reliable electricity supply, raising awareness about the business opportunities in outsourcing, and enhancing cybersecurity measures. However, these challenges are accompanied by numerous opportunities, including high broadband penetration, the establishment of innovation hubs and ICT training academies, strong public-private partnerships, a large pool of skilled youths, a favorable time zone and an opportunity to expand tax base. By effectively addressing these challenges and leveraging its inherent strengths, Edo State can position itself as a leading destination for outsourcing activities.



4.4 Headline Targets:

The Edo State Outsourcing Strategy sets ambitious targets aimed at fostering economic growth, job creation, and sustainable development. These targets include training and equipping 500,000 residents with the skills necessary to engage in outsourcing activities, creating 200,000 direct and indirect jobs in the digital service outsourcing sector within five years, nurturing 500 new outsourcing MSMEs that will generate 25,000 new jobs, increasing the contribution of digital outsourcing to the state's GDP, diversifying foreign exchange earnings, and positioning Edo State as the preferred outsourcing destination in Nigeria and Africa. Through these concerted efforts, Edo State endeavors to unlock its full potential in the digital economy and emerge as a beacon of innovation and prosperity on the African continent.



4.5 Strategic Thrusts for the Digital Outsourcing Strategy:

The Edo State Outsourcing Strategy is designed to position the state as a hub for digital outsourcing, catering to various sectors such as government, healthcare, manufacturing, IT, and telecommunications. It relies on **six key pillars** to create an environment conducive to job creation, revenue diversification, and economic growth.



4.5.1 Pillar 1: Comprehensive Policy Framework:

It emphasizes the need for a robust policy and institutional framework to support the outsourcing strategy. It involves establishing regulations that address labor dynamics, intellectual property rights, and market opportunities. A self-regulating body, the Association of IT-Enabled Outsourcing Companies (NAITEOC), will be formed to oversee sector development.



4.5.2 Pillar 2: Investment in Infrastructure:

Infrastructure investment, particularly in energy, transportation, and broadband, is crucial for the success of the outsourcing industry. Expansion of the Edo Broadband Network and improvement of electricity supply are key priorities. The aim is to enhance the state's national and global competitiveness and create an enabling environment for the outsourcing sector to thrive.



4.5.3 Pillar 3: Investment in Skill and Human Capital Development:

To scale the outsourcing sector, significant investment in digital skilling and human capital development is essential. The strategy targets the training of 500,000 residents in critical outsourcing IT skills across various domains such as software development, human resources, and sales. Internships and continuous professional development programs will also be promoted.



4.5.4 Pillar 4: Promotion and Marketing Strategy:

Effective branding and marketing campaigns are vital for attracting businesses to the outsourcing market in Edo State. The focus is on showcasing the state's outsourcing potential and human capital through conferences, media campaigns, and market research initiatives. The goal is to enhance the global competitiveness of Edo State as an outsourcing destination.



4.5.5 Pillar 5: Incentives and Support Programs:

This pillar aims to incentivize local companies to participate in outsourcing through tax reductions, grants, and access to financing. Additionally, the establishment of incubators, accelerators, and innovation hubs will nurture startups and SMEs with outsourcing potential, fostering industry growth.



4.5.6 Pillar 6: Collaboration and Multi-Stakeholder Governance:

Collaboration among governmental agencies, private sector entities, educational institutions, and research organizations is essential for expanding the outsourcing ecosystem. International cooperation will also be pursued to leverage best practices and explore cross-border partnerships. This pillar seeks to drive innovation, knowledge sharing, and skill development in the outsourcing sector.



4.6 Governance Structure for Outsourcing:

The success of the outsourcing ecosystem in Edo State relies heavily on effective governance, ensuring leadership, coordination, responsibility, and accountability. The governance structure comprises several sectors to facilitate seamless implementation of the strategy.



4.6.1 IT-Enabled Service Advisory Council:

This council, consisting of independent experts recruited based on their skills and experience, plays a crucial role in providing insights and advice to the steering committee and the wider leadership of the digital economy in Edo State. Its functions include offering expert advice on industry trends and proposing actionable strategies to the government.



4.6.2 Steering Committee:

This should comprise Commissioners from critical sectors of the economy. The Steering Committee is chaired by the Honourable Commissioner of the Ministry of Digital Economy, Science, and Technology. It provides high-level political support, strategic decisions, and interventions across various sectors to drive the implementation of the strategy.

4.6.3 Outsourcing Ecosystem Secretariat:

Administered by the Information Technology Communications Agency (ICTA), the secretariat provides administrative and secretarial support to the Steering Committee. It serves as a central point of contact for all sector governance structures and relevant organizations, ensuring coordination and effective communication among stakeholders.

4.6.4 Relevant Organizations:

These organizations are grouped into three categories: public sector originators, service providers, and industry associations. Each plays a critical role in the development, regulation, and promotion of the outsourcing industry in Edo State.

4.6.5 Public Sector Originators:

Responsible for receiving policy directives from the Steering Committee, implementing policy directives, and supporting the implementation of the strategy.

4.6.6 Service Providers:

Tasked with supporting the government through compliance with regulations, maintaining ethical standards, registering with regulators, and providing quality services to global outsourcers.

4.6.7 Industry Associations:

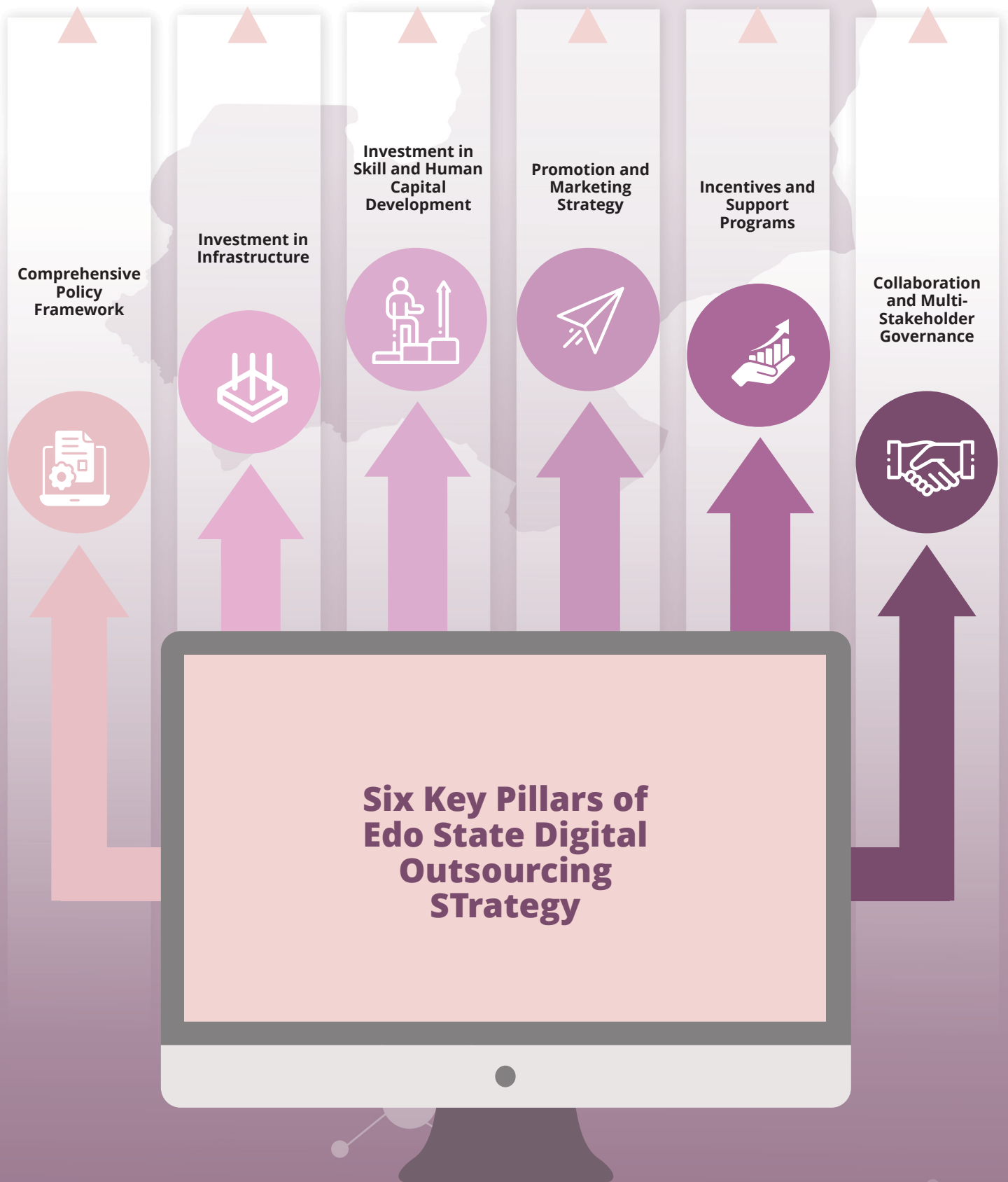
Responsible for promoting the industry through partnerships and collaboration, improving quality of service, fostering healthy competition among service providers, organizing promotional campaigns and seminars, and supporting the government in monitoring service provider activities.

4.7 Monitoring and Evaluation Team:

This team, comprising members from both private and governmental organizations, is responsible for monitoring progress within the outsourcing industry and evaluating progress against set goals and objectives. Its functions include developing operational frameworks, defining metrics for measurement, reporting risks, and assessing progress made in strategy implementation.



An environment conducive to job creation, revenue diversification, and economic growth.



5

Guidelines For The Clearance Of Information Technology (IT) Projects By Public Institutions

The "Guidelines for the Clearance of Information Technology (IT) Projects by Public Institutions" issued by the Information Communication Technology Agency of Edo State (ICTA) aim to provide a standardized and systematic approach for the deployment of IT systems by public Institutions (PIs) in Edo State. These guidelines ensure that IT projects are executed efficiently, effectively, and in line with the strategic objectives of the state.



5.1 Objectives:

The objectives of the guidelines include preventing duplication of IT projects, promoting cost-saving measures through integration and shared services, ensuring suitability of IT systems for Edo State with considerations for cybersecurity and local capacity, and promoting transparency in the approval processes.



5.2 Mandate:

The issuance of these guidelines is in accordance with the broader strategic vision outlined in the Edo State Business Strategy and Technology Strategy, approved by the Governor of Edo State. These strategies aim to leverage technology to develop a globally competitive digital economy by 2025, thereby improving the overall quality of life for Edo citizens and promoting socioeconomic development.



5.3 Clearance Procedure:

All PIs are required to obtain approval from the ICTA for their IT projects. The clearance process involves submitting a detailed application form describing the project scope, resources, budget, and justification. The Agency conducts a technical evaluation within 20 working days and provides advice or approval accordingly.



5.4 GESI Considerations:

Recognizing the importance of promoting gender equality and social inclusion in IT initiatives, the guidelines advocate for the establishment of dedicated units within the Agency and PIs to support equal engagement opportunities for women, men, and other marginalized groups. Furthermore, the guidelines emphasize the implementation of policies to prevent sexual harassment in the workplace, the use of simplified language in electronic systems to enhance accessibility, and the inclusion of gender-related indices in monitoring and evaluation procedures to track progress and outcomes.



5.5 Compliance and Monitoring:

The ICTA assumes responsibility for ensuring compliance with the guidelines and conducts regular monitoring of PIs to assess adherence to the prescribed procedures. PIs are required to permit Agency officials or agents to conduct inspections of their IT projects upon written request. Additionally, upon completion of a cleared IT project, PIs must notify the ICTA to obtain a certificate of compliance, demonstrating their adherence to the established guidelines.



5.6 Breach of Guidelines:

Any breach of the guidelines by a PI may result in the invalidation of their application. The ICTA is vested with the authority to investigate allegations of fraud or illegal activities and to take appropriate administrative actions, including revoking certificates or pursuing legal recourse if necessary.



5.7 Review and Amendment:

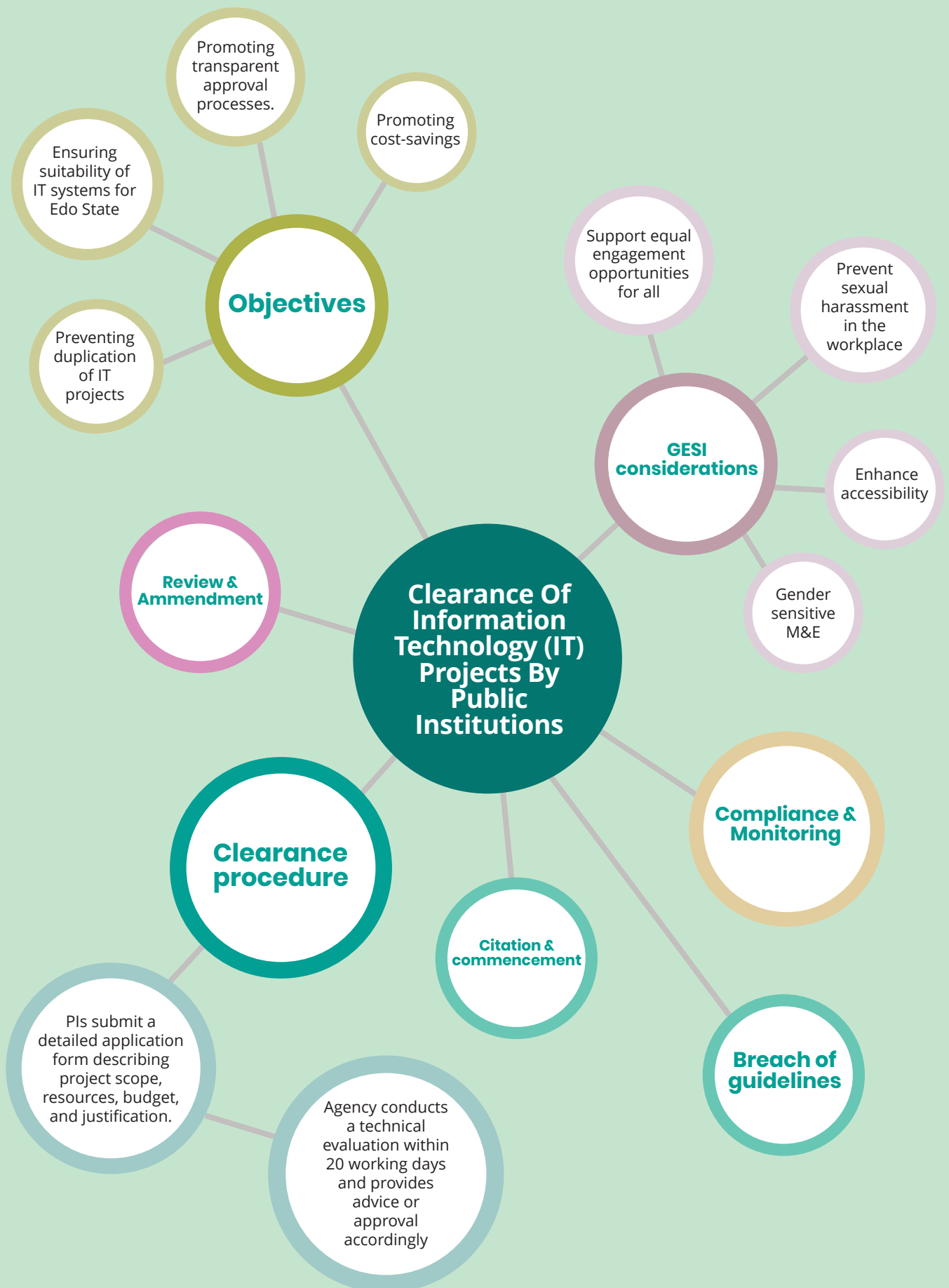
Recognizing the dynamic nature of the IT landscape and the evolving needs of the state, the guidelines remain subject to periodic review and amendment by the ICTA. Any revisions or updates to the guidelines are guided by the developmental aspirations of the state, the advancement of PIs, and the overarching goal of enhancing efficiency and effectiveness in public service delivery.



5.8 Citation and Commencement:

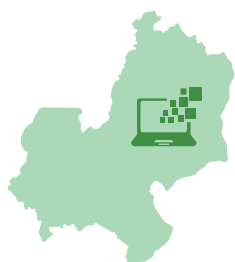
The guidelines, cited as "Guidelines for the Clearance of IT Projects by PIs," come into effect upon being signed by the Managing Director of ICTA. This formal commencement signifies the commitment of the Agency to uphold the principles and standards outlined in the guidelines, thereby fostering a conducive environment for IT development and innovation within Edo State.





6

Guidelines For Local Content Development In ICT In The Edo State Public Sector



The guidelines aim to leverage Edo State's ICT potential by emphasizing the use of locally developed hardware, software, and services in order to foster economic growth, innovation and self-reliance.

6.1 Objectives:

- To empower the local ICT industry, fostering high-quality product development, enhancing indigenous company capabilities, and creating an ICT-friendly environment.
- Enable local ICT industry contribute to the achievement of the State's digital development plans initiatives, and targets.



6.2 Ensuring an Enabling Environment for Indigenous Development of ICT Devices:

- Procurement guidelines encourage sourcing computer hardware from local manufacturers, prioritizing those approved by NITDA or within Nigeria.
- Requirements include keyboards supporting indigenous languages and the Naira sign, along with preference for companies offering local hardware support.



6.3 Policies on Indigenous Software Development and Services:

- Emphasis on local sourcing of software and services where capacity exists, with guidelines favoring indigenous software developers.
- Requirements for turnkey deployment and systems integration capability ensure effective implementation.



6.4 Policies on Networking Services and Data Management:

- Promotion of system logs and data security protocols to enhance troubleshooting and forensic investigation capabilities.
- Requirement to host sovereign data locally on servers within Nigeria for data security and sovereignty.



6.5 Gender Equality and Social Inclusion (GESI) Considerations:

- Establishment of gender and inclusion units to ensure equal engagement opportunities in ICT projects.
- Implementation of policies to prevent sexual harassment and involvement of local stakeholders in content development.
- Emphasis on supplier diversity and inclusion criteria, inclusive education, and establishment of complaint mechanisms to promote inclusivity.



6.6 Compliance, Breach, and Enforcement:

- The Governor holds primary responsibility for ensuring compliance, with measures in place to address breaches and uphold the integrity of the guidelines.
- These guidelines aim to promote local ICT industry growth, inclusivity, and compliance for sustainable digital development in Edo State.



7

Guidelines For The Management Of Personal Data By Public Institutions



The guidelines aim to regulate the processing of personal data by public institutions in Edo State in alignment with the Nigeria Data Protection Act, 2023 (NDPA). The Act emphasizes the protection of personal data as crucial for the digital economy and individual privacy rights.

7.1 Purpose and Objectives:

The guidelines are issued to ensure fair, lawful, and accountable processing of personal data by public institutions. Objectives include promoting data security, protecting data subject rights, and strengthening legal foundations for the digital economy.



7.2 Why Personal Data Protection?:

Personal data protection safeguards individuals' privacy rights and controls how their information is collected, processed, and shared by organizations. Authority for these guidelines is derived from the Nigeria Data Protection Act, 2023.

7.2.1 Scope of Application:

The guidelines apply to all public institutions in Edo State, including ministries, agencies, corporations, and publicly funded entities processing personal data. The principles and requirements outlined in the Nigeria Data Protection Act, 2023, remain applicable.



7.3 Processing of Personal Data:

- Public institutions must safeguard personal data during processing and adhere to the NDPA regulations.
- Principles of fair, lawful, and transparent data processing must be followed, ensuring data accuracy, relevance, and security.



7.4 Lawful Basis for Processing Personal Data:

- Processing of personal data must be based on consent, contractual obligations, legal requirements, public interests, vital interests, or legitimate interests.

- Public institutions must adhere to specific conditions and limitations for lawful processing.



7.5 Requirement of Consent:

- Consent is required for direct marketing, processing sensitive personal data, altering data purposes, processing data outside Nigeria, and automated decision-making.
- Higher consent standards apply to sensitive personal data processing.



7.6 Data Subject Rights:

- Data subjects have rights to privacy, refusal of data provision, non-tracking or tracing without consent, and access to judicial interpretation or redress.
- Data controllers must ensure compliance with data subject rights and facilitate access to judicial redress.



7.7 Use of Technology for Processing of Personal Data:

- Public institutions must digitally store databases with restricted access within 60 days of guideline issuance.
- Personal data sharing must use encrypted formats, and sharing in non-compliant formats is prohibited.



7.8 Obligation of Data Controllers to Share Personal Data:

- Data controllers must comply with requests for personal data processing from public institutions, subject to guideline provisions.
- Requests for data processing must align with legal requirements and undergo evaluation.



7.9 Processing of Personal Data for Public, Legal, or Vital Interests:

- Public institutions must follow specific procedures when engaging data controllers for processing personal data in public, legal, or vital interests.
- Requests must be authorized, purpose-specific, and compliant with guideline provisions.



7.10 GESI Considerations:

- Collaboration between data protection officers and gender and inclusion units is crucial to enhance awareness and implement gender-inclusive data management practices.
- Data disaggregation and monitoring mechanisms should be established to

assess the impact of personal data management on different gender and inclusion groups.



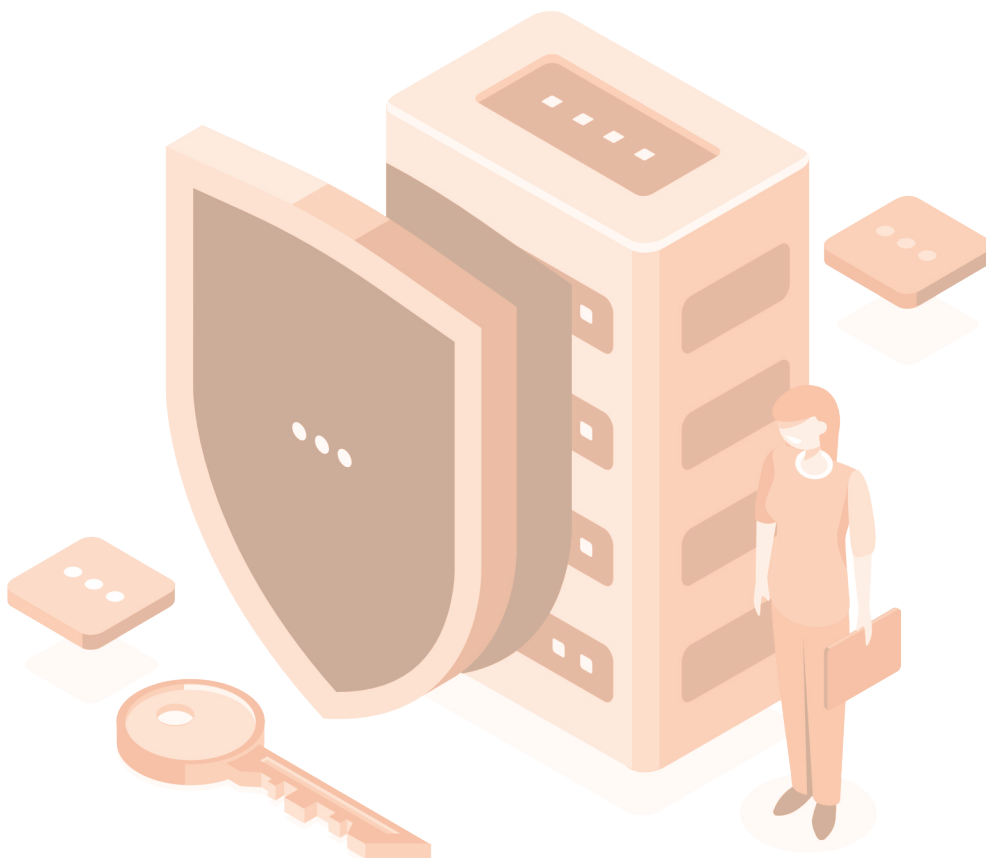
7.11 Matters of Security:

- Public institutions must ensure data confidentiality, integrity, availability, and resilience.
- Compliance with international information security standards, data protection impact assessments, and appointment of data protection officers are required.



7.11.1 Offences, Penalties, and Enforcements:

- Breach or non-compliance with guideline provisions constitutes an offense with corresponding penalties and enforcement procedures as per the NDPA, 2023.
- Principal officers of public institutions processing personal data are personally liable for breaches or misuse of information.



8

Guidelines For The Registration Of ICT Service Providers To Public Institutions

These guidelines are established as part of Edo State's vision to develop a globally competitive digital economy by 2025. They aim to regulate the registration process for ICT service providers offering services to Ministries, Departments, or Agencies (MDAs) of Edo State.



8.1 Purpose and Scope:

The guidelines are issued by the Information Technology Communication Agency (ICTA) of Edo State to ensure a coordinated and standardized approach to IT system deployment in public institutions (PIs). They mandate PIs to obtain clearance from the Agency for their IT projects.



8.2 Registration:

Only indigenous ICT service providers with their websites hosted on the .ng domain and demonstrating capacity through the application process are considered for registration.

8.2.1 Minimum Requirement for Registration:

Applicants must complete the application form, submit required documents, ensure all supporting documents are attached, and submit an application letter to the Managing Director of the Agency.



8.2.2 Proof of Competence:

Applicants must demonstrate verifiable competence, possess sufficient personnel, have at least one principal officer registered with CPN, and show a plan for Nigerian succession for expatriate staff.



8.2.3 Expatriate Staff:

Proof of approved expatriate quota and relevance of expatriate skills to the job description are required. A succession plan for Nigerians to replace expatriate staff is also necessary.



8.2.4 Notice of Change of Information:

Any changes in provided information must be notified to the Agency within 45 days.

8.2.5 Certificates of Registration:

A provisional certificate is issued initially, valid for 6 months, followed by a substantive certificate if all information is verified as true, valid for 2 years from the provisional certificate's issuance.

8.2.6 Renewal of Registration:

Renewal applications must be submitted at least 3 months before the expiration of the substantive certificate.



8.2.7 IT Related R&D, Incubation, or Startup:

Applicants must provide information on activities supporting IT-related research, development, incubation programs, or startup businesses.



8.2.8 Right of Agency to Register IT Services:

The Agency reserves the right to register or deregister any service indicated by an Applicant, based on proof of capacity and relevant personnel.

8.2.9 Standardized Service Level Agreements (SLA):

Submission of standardized SLAs is required, outlining service standards, responsibilities, monitoring, legal compliance, payment terms, dispute resolution, and confidentiality.



8.3 GESI Considerations:

Promoting gender and social inclusion is emphasized through collaboration with PIs, policy statements, inclusive language, user-friendly guides, and integration into SLAs.

8.4 Compliance and Monitoring:

The Agency is responsible for ensuring compliance, monitoring PIs, conducting inspections upon request, and taking action against breaches, including investigations, revocations, or legal actions.



8.5 Review And Amendment:

The guidelines may be reviewed and amended to align with developmental aspirations, improve efficiency, and enhance public service delivery in Edo State.

REGISTRATION

Purpose: To ensure a coordinated and standardized approach to IT system deployment in PIs.

Registration: Covers various components including minimum requirements, renewals etc.

GESI considerations: Promoting gender and social inclusion.

Compliance and monitoring: Responsibility of the agency.

Review and amendment: Towards enhance public service delivery in Edo State.



9

Edo Digital Economy Policy Framework



The digital economy's transformative impact is reshaping global competitiveness and enhancing the ease of doing business across various regions. In Edo State, this paradigm shift towards a knowledge-based economy is evident as technology permeates businesses, government operations, and societal interactions. This evolution is driving significant changes across diverse value chains, including business-to-customers (B2C), business-to-business (B2B), and government-to-people (G2P) services.

9.1 Rationale for the Digital Economy:



Edo State's digital economy policy is underpinned by several guiding principles aimed at fostering inclusive development, enhancing citizen services, and creating new economic opportunities. By adopting a citizen-centric approach, the policy aims to improve access to government services while promoting engagement and feedback mechanisms. Furthermore, the policy advocates for a whole-of-government strategy to streamline operations, eliminate duplication, and improve efficiency. Emphasizing results delivery, public-private partnerships, and digital-first strategies, the policy seeks to drive sustainable growth, innovation, and value creation.



9.1.1 The ABC of the Digital Economy:

Defining the digital economy varies across stakeholders, but its essence lies in leveraging digital technologies to drive economic activities and innovation. In Edo State, the digital economy encompasses enabling policy environment, ICT infrastructure, innovation, and human capital development aimed at transforming governance, enhancing competitiveness, and fostering sectoral and citizen's growth.



9.2 Pillar 1: Enabling Environment for the Digital Economy:

Edo State's focus areas for improving the business environment include implementing ease of doing business guidelines, strengthening institutional arrangements, and developing digital policy toolkits. Additionally, promoting digital capability and inclusion through skill development initiatives and gender-sensitive policies is prioritized to ensure broad participation in the digital economy.



9.2.1 Policy Objectives:

The Digital Economy Policy in Edo State sets clear objectives to enhance ease of doing business, define operational guidelines for electronic transactions, and promote public-private partnerships. It aims to develop inclusive policies and guidelines while providing strategic leadership and operational frameworks for digital transformation.

9.2.2 Implementation Strategies:

To realize the objectives outlined in the Digital Economy Policy, Edo State plans to:

- Drive ease of doing business initiatives
- Launch comprehensive policy toolkits
- Develop institutional frameworks.
- Implement Right of Way policies
- Establish technology parks, and enact consumer protection regulations



9.3 Pillar 2: Digital Infrastructure:

Edo State's Digital Infrastructure Pillar focuses on expanding broadband connectivity, enhancing digital platforms, and strengthening digital financial services. Key initiatives include the Edo Broadband Network, digital public infrastructure modernization, and cashless transaction frameworks to facilitate digital transformation and economic growth.

9.3.1 Policy Objectives:

Objectives within this pillar include capping Right of Way charges, defining operational guidelines for broadband networks, and establishing a State Universal Service Provision Fund (SUSPF) to promote inclusive broadband access. Strengthening cashless transaction policies and professional ICT cadre development are also prioritized to drive digital infrastructure development and adoption.



9.3.2 Implementation Strategies:

To achieve these objectives:

- Expand broadband networks
- Maintain a zero Right of Way charges
- Establish the SUSPF
- Operationalizing cashless policies
- Continuous training for civil servants, and public-private partnerships



9.4 Pillar 3: Digital Skills & Human Capital:

The Digital Skills & Human Capital Pillar focuses on developing digital literacy and skills programs to prepare individuals for the digital economy. By integrating digital literacy into



education curriculum and fostering partnerships with industry stakeholders, Edo State aims to bridge the skills gap and empower its workforce for the future.

9.4.1 Policy Objectives:

Objectives include integrating digital literacy into education, bridging the academia-industry gap, and supporting continuous training for public sector employees. Improving access to digital tools and platforms, as well as promoting digital skills among citizens, particularly women, girls, and vulnerable groups, are crucial objectives to foster digital inclusion and economic empowerment.

9.4.2 Implementation Strategies:

- Strategies involve updating curriculum to include digital literacy
- Establishing training centers in underserved areas, and continuous training for public servants
- Partnerships with private sectors and educational institutions, along with high-level digital skills training initiatives, are essential to unlock the full potential of Edo State's workforce and drive sustainable economic growth in the digital age.



9.5 Pillar 4: Digital Innovation & Entrepreneurship:

The digital innovation and entrepreneurship ecosystem in Edo State is vibrant, with active players including incubators, venture capital firms, and digital startups. While Benin City hosts the majority of these entities, potential scaleups exist in Ekpoma and Auchi. However, many digital businesses operate within low-value-added segments, facing challenges such as limited access to modern technology, low digital literacy rates in rural areas, and a shortage of skilled workers. Collaborations and partnerships, notably through platforms like Edo Creative Hub and Edo Innovates, have been instrumental in fostering entrepreneurship and self-dependency, with initiatives like training programs in collaboration with organizations like Amazon Web Service and Decagon Institute.



9.5.1 Policy Objectives:

The policy objectives include strengthening the innovation ecosystem through funding and capacity building, promoting the application of emerging technologies in government and business for efficiency, supporting digital entrepreneurship, and enhancing the innovativeness of MSMEs through improved networking and absorptive capacity.

9.5.2 Implementation Strategies:

- Implementation strategies include investing in technology hubs and parks
- Providing support to innovation-driven enterprises and MSMEs
- Promoting their participation in procurement processes
- Facilitating networking opportunities

10 Edo State Cybersecurity Strategy



The Edo State Cybersecurity Strategy is built upon guiding principles, strategic goals, and pillars to establish a robust cybersecurity infrastructure in the state. It addresses various aspects such as governance, legal frameworks, critical infrastructure protection, capacity building, digital economy, cyber risks management, and fostering a cybersecurity culture.

10.1 Why Cybersecurity Matters:

Cybersecurity is essential as it protects individuals, organizations, and the digital environment from cyber-attacks like malware, phishing, and identity theft. It ensures the safety and security of online transactions and communications. The ABC approach emphasizes Assessment, Boosting awareness, and Compliance with security standards.



10.1.1 The Global Context:

The digital revolution has increased cyber risks globally, with factors like mobile device use, emerging technologies, remote work, and borderless cyber threats contributing to the challenge.

10.1.2 The Nigerian and Edo State Context:

Nigeria faces significant cybersecurity challenges due to its demographic, socio-economic, and technological factors. In Edo State, cybersecurity is vital for securing ICT-based services and fostering trust in the digital economy.



10.2 Strategic Foundation:

The strategy is guided by principles to safeguard critical infrastructure, uphold human rights, promote economic benefits, foster collaboration, and ensure confidentiality, integrity, and availability of digital systems.



10.2.1 Strategic Goals:

The goals aim to strengthen governance, improve legal frameworks, protect critical infrastructure, enhance capacity building, enable a thriving digital economy, minimize cyber risks and crimes, and foster a cybersecurity culture.



10.3 Strategic Pillars:

Seven strategic pillars form the core of the cybersecurity strategy, covering governance, legal frameworks, critical infrastructure protection, capacity building, digital economy enablement, cyber risks management, and fostering a cybersecurity culture.



10.3.1 Seven Pillars of Cybersecurity:

- **Strengthening Cybersecurity Governance:** Establishing a framework for coordination, resource allocation, and collaboration among stakeholders.
- **Improving the Legal and Regulatory Framework:** Developing and enforcing laws, regulations, and standards to address cyber threats and crimes. Ensuring Critical
- **Information Infrastructures Protection (CIIP):** Implementing resilient cybersecurity systems to protect vital infrastructure.
- **Improving Cybersecurity Capability & Capacity Building:** Enhancing skills and resources to effectively respond to cyber threats.
- **Enabling a Thriving Digital Economy:** Creating a safe and secure environment for digital transactions and communications.
- **Improving Cyber-Risks and Cybercrimes Management:** Implementing efficient procedures to minimize cyber risks and crimes.
- **Fostering a Cybersecurity Culture, Cooperation, and Collaboration:** Promoting awareness, collaboration, and cooperation among stakeholders to enhance cybersecurity.



10.3.2 Critical Information Infrastructure Protection (CIIP):

Prevailing Conditions

- **Infrastructure Development:** The Edo State Government is implementing a three-pronged infrastructural plan, including solid, soft, and service infrastructure, to digitalize operations and service delivery.
- **Solid Infrastructure:** Edo State has established a tier-three data center and plans to create a data recovery site for added security. An extensive fiber optic network connects government buildings, and a Document Management System (DMS) is in place for digital document storage.
- **Soft Infrastructure:** Websites for all ministries facilitate government-to-citizen interaction, with plans for a unified service portal. Data analytics investments are aimed at informed decision-making.
- **Service Infrastructure:** Free Wi-Fi access is provided at strategic locations, and a Residency ID card system leverages the National Identification Number (NIN) for secure interactions. Plans are underway for specialized cloud services.
- **CII Identification:** The Federal Government identifies 13 CII sectors across the Nigerian economy, cascading to Edo State, which identifies 14 CII sectors.
- **Use of Private Vendors:** There is a reliance on private vendors for ICT solutions, posing cybersecurity risks due to the lack of state-wide frameworks governing cybersecurity controls.



10.3.3 Towards Achieving CIIP:

- **Protection of CIIs:** Ensuring confidentiality, integrity, and availability against cyber threats and related crimes.
- **Enhancement of Protection:** Strengthening resilience and safeguarding CIIs through effective collaboration with owners and operators.
- **Incorporation of Redundancy:** Adding redundancy mechanisms to enhance CII protection.
- **Standardization of Procurement:** Establishing standardized procedures and standards for contracting ICT service providers, focusing on cybersecurity controls.



10.3.4 How to Achieve CIIP:

- **Sector-Specific Criteria:** Developing criteria and best practices for each CII sector.
- **Continual Strengthening:** Regularly enhancing the CIIP plan.
- **Identification and Evaluation:** Identifying and evaluating potential CIIs and conducting periodic audits to estimate risk levels.
- **Development:** Developing a CIIP framework and implementing baseline cybersecurity measures.
- **Encouraging Local Hosting:** Promoting the establishment of local cloud computing data centers and services.
- **Information Sharing:** Establishing information sharing frameworks and incident response mechanisms.
- **Private Sector Engagement:** Involving the private sector in addressing CII security and resilience.
- **Policy Development:** Developing cybersecurity policies for e-Government platforms.
- **Capacity Building:** Collaborating with PAT and PC to engage and sensitize the public about CIIs.



10.3.4 Improving Cybersecurity Capability and Capacity Building:

i. Prevailing Conditions:

- **Low Capability:** Low cybersecurity capability and capacity building across the nation, particularly in rural areas.
- **Public Sector Gaps:** Lack of knowledge and expertise in the public sector regarding cybersecurity.
- **Recognition and Gap:** Recognition of the need to build local capacity in cybersecurity, with no existing policy framework addressing the gap.

ii. Towards Improvement:

- **Capability Strengthening:** Strengthening cybersecurity capability and capacity.

- **Enhanced Protection:** Enhancing protection and resilience against cyber threats.
- **Awareness and Education:** Increasing awareness, education, and expertise in cybersecurity.

iii. How to Achieve Improvement:

- **Policy Framework:** Introducing a policy framework for cybersecurity capability and capacity building.
- **Implementation of Tools:** Implementing necessary cybersecurity tools and systems.
- **Incentives:** Introducing incentives to attract and retain high-tech professionals.
- **Security Measures:** Ensuring cybersecurity measures for government-provided laptops and collective access kiosks.
- **Local Solutions:** Promoting local cybersecurity innovation and development.
- **Training Programs:** Implementing cybersecurity training across all MDAs.



10.3.5 Enabling a Thriving Digital Economy:

i. Prevailing Conditions:

- **Digital Economy Growth:** Nigeria's digital economy is expanding, with a focus on positioning the country as a globally competitive digital economy.
- **Cybersecurity Significance:** Promoting a thriving digital economy is a pillar of the National Cybersecurity Policy and Strategy 2021.

ii. Towards a Thriving Economy:

- **Safe Environment:** Creating a safe and trusted digital environment for communication and transactions.
- **Trust and Confidence:** Improving trust and confidence in digital products and services.
- **Security of Platforms:** Ensuring security and resilience of e-government and service platforms.

iii. How to Achieve a Thriving Economy:

- **Guidelines and Encryption:** Introducing guidelines and encryption to ensure cybersecurity in the digital economy.
- **Adoption of Best Practices:** Encouraging adoption of best practices and standards in cybersecurity.
- **Public-Private Partnership:** Collaborating through public-private partnerships for cybersecurity initiatives.



10.3.6 Effective Cyber-Risk and Cybercrime Management:

i. Prevailing Conditions:

- **Increased Threats:** Cyber-attacks are increasing in volume and sophistication, particularly in financial services.
- **Lack of Coordination:** Lack of central coordination for cybersecurity incident response at the state level.
- **State-Level Measures:** State measures include stringent network access controls and compliance with federal data privacy laws.

ii. Towards Effective Management:

- **Risk Mitigation:** Minimizing cybersecurity risks and combating cybercrimes.
- **Response Capability:** Building cybersecurity prevention and response capabilities.
- **Information Sharing:** Promoting information sharing and collaboration.

iii. How to Achieve Effective Management:

- **Risk Framework:** Developing a state cybersecurity risk management framework.
- **Establishment of edCERT:** Establishing an Edo State Computer Emergency Response Team.
- **Information Security Audits:** Conducting periodic information security audits.



10.3.7 Fostering Cooperation and Collaboration:

i. Prevailing Conditions:

- **Threat Perception:** Cybercrime and regulatory constraints are perceived as leading threats to the financial services industry.
- **Cooperation Challenges:** Ineffective regulations and practices hinder cooperation and collaboration among stakeholders.

ii. Towards Fostering Cooperation:

- **Promoting Cooperation:** Promoting local, national, and international cooperation on cybersecurity.
- **Information Sharing:** Entrenching the culture of information sharing.
- **Public-Private Partnership:** Adopting a public-private partnership approach.

iii. How to Achieve Cooperation:

- **Research and Development:** Introducing a cybersecurity research and development program.

- **International Agreements:** Signing international agreements and treaties on cybersecurity.
- **Stakeholder Engagements:** Organizing regular stakeholder engagements and training programs.



10.4 GESI Considerations:

- **Vulnerable Groups:** Developing mechanisms to create a safer cyberspace for vulnerable groups.
- **Children's Safety:** Enhancing children's safety on the Internet.
- **Registry Maintenance:** Maintaining a register of persons convicted of cyber-related offences.
- **Disability-Friendly Design:** Mandating disability-friendly design in cyberspace.
- **Juvenile Delinquency:** Implementing legal interventions to tackle cyber-related juvenile delinquency.
- **Engagement and Sensitization:** Collaborating with PAT and PC to engage and sensitize the public about cybersecurity.



