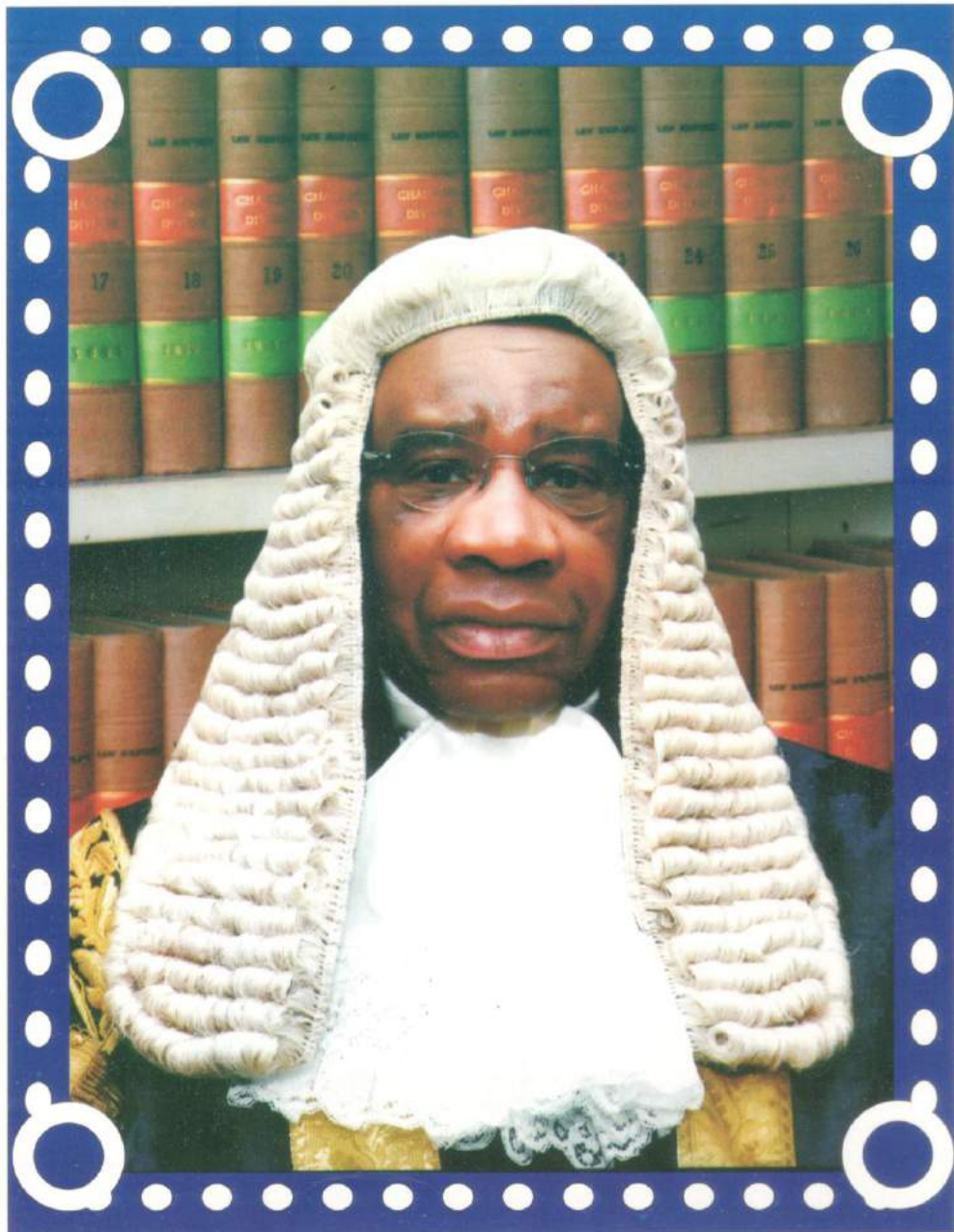




NIGERIAN JUDICIARY INFORMATION TECHNOLOGY POLICY DOCUMENT

July 2012



HON. JUSTICE DAHIRU MUSDAPHER, GCON, CFR, FCIArb, FNIALS

CHIEF JUSTICE OF NIGERIA

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CHAIRMAN, NATIONAL JUDICIAL COUNCIL

JUDICIAL INFORMATION TECHNOLOGY POLICY OF THE NIGERIAN JUDICIARY

Judicial Information Technology Policy Committee

National Judicial Council

Supreme Court Complex,

Three Arms Zone, Abuja

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TABLE OF CONTENTS

1	BACKGROUND	6
2	INTRODUCTION	7
2.1	PURPOSE	7
2.2	VISION	8
2.3	MISSION	8
2.4	INFORMATION TECHNOLOGY FUNCTIONAL AREAS IN THE JUDICIARY.....	8
2.5	POLICY OBJECTIVES.....	9
3	ICT INFRASTRUCTURE IN THE NIGERIAN JUDICIARY	11
3.1	NETWORK PLANNING AND FEASIBILITY STUDY.....	11
3.2	SITE PREPARATION	11
3.3	NETWORK INFRASTRUCTURE	16
3.3.1	Local Area Network.....	16
3.3.2	Wireless Networks.....	16
3.3.3	Wide Area Network.....	19
3.3.4	Internet Connectivity.....	19
3.3.5	Hardware	20
3.3.6	Software.....	20
3.3.7	Customized Software and Enterprise Resource Planning (ERP) Software.....	22
3.4	COMMUNICATION INFRASTRUCTURE	22
3.4.1	Web Portal	22
3.4.2	Intranet / Portal Services	23
3.4.3	Email Services.....	23
3.4.4	Portable Devices	24
3.5	COURT TECHNOLOGIES	24
3.5.1	Case Management Software	24
3.5.2	E- Filing.	25
3.5.3	Electronic Document Management System (EDMS)	25
3.5.4	Virtual Library.....	26
3.5.5	Video Conferencing	27
3.5.6	File Tracking.....	27
3.5.7	Unified Communication System and IP Telephony	28
3.5.8	E-Court Systems.....	29
3.6	ICT ASSETS MAINTENANCE	30
3.7	NATIONAL JUDICIAL COUNCIL DATA CENTRE AND NATIONAL JUDICIAL INSTITUTE RESOURCE CENTRE	31
3.8	ASSETS DISPOSAL POLICY	31
4	IT GOVERNANCE AND CONTROL	33
4.1	JUDICIAL INFORMATION TECHNOLOGY POLICY COMMITTEE.....	33
4.2	ICT COMMITTEE	33
4.3	BENEFIT MANAGEMENT	33
4.4	INFORMATION AND COMMUNICATION TECHNOLOGY DEPARTMENT	34
4.5	ICT SKILLS REQUIREMENT	34
4.6	CAPACITY BUILDING	35
4.7	BUDGET FOR ICT INFRASTRUCTURE AND RESOURCES	35
4.8	JUDICIARY IT AUDIT	35
4.9	ICT VENDOR SELECTION	35
4.10	SECURITY	36
4.11	ADOPTION OF INDUSTRY FRAMEWORKS	36

FOREWORD

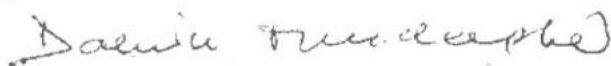
An effective justice system is based on four principles: Independence, Transparency, Accountability and Efficiency. This also provides the framework for the design, development and organization of all judicial institutions. Furthermore, the Nigerian people require a justice system that will not only imbibe these principles, but will also be fully responsive to their interests, meet the needs of court users and the public in a timely and effective manner.

However, at present, various challenges exist which are preventing us from reaching our vision of having "...a justice system that is simple, fast and efficient...". Primary amongst these challenges is the sustained use of out-of-date paper based systems and processes which delay the administration and dispensation of justice. As part of the reform initiatives aimed at tackling some of these weaknesses in our current system, I inaugurated the Judicial Information Technology Policy Formulation and Implementation Committee on 30 January 2012. This Committee is constituted of highly knowledgeable, dedicated and greatly respected Judicial Officers and non-Judicial Officers. One key task of the Committee was to design and develop a comprehensive, pragmatic information technology policy, which could be effectively implemented in all jurisdictions. I am delighted that within a short time, this has been accomplished.

It is my hope that this Policy Document will be taken into account prior to the implementation of any information technology project in the Judiciary as many of the issues that will require due consideration have been adequately captured.

It is my hope that all courts and judiciaries will now work with the Committee to actualise these policy objectives. I am aware that there is tremendous benefit in having a comprehensive national policy and setting out to systematically implement it. Experts are of the opinion that if successfully implemented, our system and courts will be the envy of even the judiciaries whose successes inspired me to set up the Committee in the first place.

I pray we succeed and set the pace in this sphere for the other arms of government, for the benefit of our nation.



Dahiru Musdapher, GCON, CFR, FCI Arb, FNIALS
Chief Justice of Nigeria, and
Chairman, National Judicial Council, Abuja.
July 2012

Background

Timely, efficient and effective administration of justice is indispensable in the growth and development of any nation. Good justice systems are independent, transparent, accountable and efficient. Citizens depend on the judicial arm of government for key decisions that affect their daily lives and the society they live in. A good justice system is an inalienable right of the citizen.

Information Technology has positively impacted on all spheres of modern life, enabling amazing efficiencies in the delivery of high quality services. The judiciary too can leverage on Information and Communication Technology to enhance the delivery of its services. The main business of the Judiciary is to hear and determine cases in a fair and timely manner at reasonable cost. In doing so, there are processes that precede the determination of matters before the courts; these processes must be efficient, effective, and equitable.

But a balance must be maintained between various objectives of the justice system against the available resources and the competing demands for the limited resources available, for meaningful, thorough and enhanced service delivery.

In order for the judiciary to fulfill its role while achieving the balance, the Honourable, the Chief Justice of Nigeria, Hon. Justice Dahiru Musdapher, GCON, inaugurated a committee to outline a policy for the application of Information Technology (IT) in the running of the day-to-day activities of the courts.

It is expected that this utilization of ICT will enhance the operational processes of the judiciary and eliminate undue delays in justice dispensation. It is also expected that the dispensation of justice will be less cumbersome and stressful for the judges, judicial staff, lawyers and litigants, amongst other benefits.

2 Introduction

To fully satisfy the yearnings of Nigerians for speedy and qualitative justice and justify the confidence of the public in the Judiciary, the use of IT can no longer be discretionary. It must become the norm.

To reduce case backlog, increase transparency and enhance performance, an aggressive, holistic adoption of appropriate information technology is required.

As a service-based institution, the Judiciary must begin to make use of innovations such as video conferencing, e-courts, e-filing, integrated communication systems, etc., to improve productivity and boost public confidence in the Judiciary.

However, the introduction and continued utilization of IT must be aligned with the needs of the Judiciary and the expectations of the key stakeholders of the justice sector. To effectively drive this process, it is imperative that a policy is developed to serve as a guideline for the various bodies within the Judiciary, notwithstanding the level of IT awareness or proficiency.

This policy is to serve as a guide for court automation projects in the Judiciary, providing minimum standards based on existing industry best practices.

2.1 Purpose

The purpose of this Policy is to ensure that ICT is used to effectively support the functions and activities of justice administration and dispensation by enabling optimal development, deployment and management of ICT within the Nigerian Judiciary.

2.2 Vision

To ensure a justice system that is simple, fast, efficient and effective.

2.3 Mission

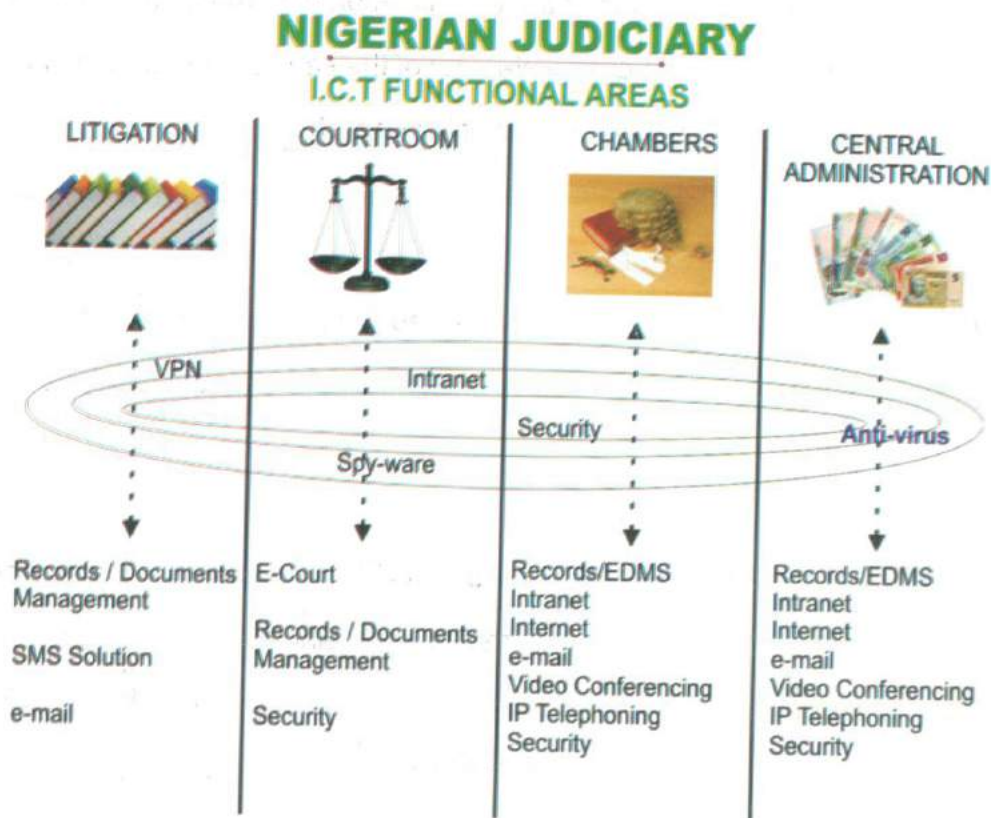
To fully integrate ICT into the Court system

2.4 Information Technology Functional Areas in the Judiciary

Figure 1

Information Technology Functional Areas in the Judiciary

This policy stipulates specific ICT functional Areas for the Nigerian Judiciary as



illustrated in fig. 1. (above). These functional areas are the:

1. Litigation Department/Section
2. Courtrooms
3. Chambers/Residences of Judicial Officers and Management staff
4. Central Administration

The functional areas represent the focal points for ICT intervention and implementation within a judicial system. Every judicial organization should ensure that these functional areas are properly, adequately and equitably captured in their annual budget provisions.

Fig. 1 also indicates ICT resources that are considered essential for each functional area, i.e. Record/Document management system, SMS solution, email (for litigation), e-court/courtroom technology, EDMs (for courtroom), EDMs, intranet, internet, email, VC, IP telephony (for Chambers, Residences and Central Administration).

In addition to the ICT resource unique to each functional area, this policy also stipulates that other ICT resources should be acquired and implemented as shared enterprises to be used across all functional area, thus ensuring easy maintenance and cost savings. These include but are not limited to:

- Virtual Private Network
- Intranet Portal
- Enterprise Anti-Virus and Security Software.

1.1 POLICY OBJECTIVES

1. To guide towards the effective use of information technology in the Judiciary aimed at improving the services and achieving overall cost efficiency.
2. Meeting the needs of judges and chambers. The Judiciary will focus on

meeting the information technology needs of Judges and their Support Staff.

3. Meeting the demands of increased data communications. The Judiciary will meet increasing requirements for data transmission by implementing new technologies that will optimize the data communications network while maintaining and improving its reliability and performance.
4. Ensuring security, confidentiality, and privacy. The Judiciary will implement security policies and technologies at the network, server, and desktop levels that will ensure the confidentiality of chambers and court information without compromising reasonable expectations of stakeholders.
5. Provide the Bar and the public with easy access to appropriate court and case information.
6. Provide external participants, including *pro se* parties where appropriate, with access to the adjudicative process.
7. Foster cooperation and communication between judges, litigants, the bar and court employees with other foreign judicial systems and bodies.
8. Speed up the judicial process by making use of appropriate technologies for effective justice delivery.
9. Provide seamless and effective integrated network between various organs of the Judiciary.
10. Facilitate progressive reduction of reliance on paper-based processes.

2 ICT infrastructure in the Nigerian Judiciary

For the implementation of the court automation project in the Nigerian Judiciary, a key component is to setup IT infrastructure in all the court complexes. ICT infrastructure provides a technology foundation within an organization. It enables judges, court officers, lawyers and litigants to access a wide range of tools, services and digital resources to support the effective dispensation of justice. ICT infrastructure typically has many hundreds of interconnected technology components. Below are components of ICT Infrastructure expected to be implemented using this policy.

2.1 Network Planning and Feasibility Study

All judicial organizations must carefully plan their network infrastructure after conducting a detailed feasibility study. The Network plan must provide for future expansion and adequate security requirements. The ICT infrastructure required for the judicial system will be mapped to the processes followed in the judicial system and planned accordingly. Depending on the requirements, the specifications of the hardware/ICT infrastructure are to be documented.

2.2 Site Preparation

All judicial organization must ensure selection of an appropriate site for the installation of information technology equipment during the preliminary stage of site preparation. Each judicial body should have a dedicated area/room for housing the services and related ICT equipments. Basic considerations for site preparations are analyzed as follows:

1. **Site selection:** The location of the Server Rooms and Data Centres should be carefully selected with Security and Accessibility as the main considerations. In particular, situating them close to the exterior walls of the building should be avoided to prevent the heat gains from windows and exterior wall surfaces. The Server Rooms and Data Centres should be located away from generator rooms, lift plant rooms, etc. As much as possible, only Contractors with previous experience in Server Rooms and Data Centre Construction / Furnishing should be engaged.

2. **Furnishing requirements:** Unnecessary items must be removed from the Server Rooms and Data Centres. These include unused upholsteries, faulty hardware, as well as pipes and ducts not serving any purpose. Also, all materials to be used in the Server Rooms and Data Centres should be non-combustible and fire retardant and have the properties of smooth surface finishing.

3. **Raised Floor:** This is to be used in the Server Room. It should be built of individual and interchangeable floor panels, sturdily and rigidly above the structural floor. It must be evenly leveled and strong enough to withstand all necessary loads that exert on it. Additional support may be required if the panels are weakened by cutouts.

It provides the following advantages:

- Acts as an air podium for conditioned air distribution
- Provides spaces for cable running
- Enables simple equipment installation and provides flexibility for subsequent layout

- Enables modifications or equipment expansion
- Protects the interconnecting cables, plugs and power connectors
- Eliminates hazardous cabling underfoot
- Maintains a cleaner environment

4. **Central Control and Monitoring System:** Given the fact that Server Rooms and Data Centres are not quite habitable, it is essential to provide Systems Administrators who work in these rooms with monitoring tools and ability to remotely and centrally control facilities in these rooms. If possible, a Central Control and Monitoring System should be acquired for this purpose.

The use of remote centralized monitoring systems will ensure early detection of problems with various facilities such as power supply system, air conditioning system, fire services system, access control system etc.

5. **Power Requirements**

- Power Source – It is essential to acquire reliable power source for all computer equipment, especially in the Server Room and Data Centre. It is also advantageous to use electrical noise protection devices to prevent electrical noise disturbance. As much as possible, the power source to the Sever Room should not be shared with other devices.
- Basic Power Requirements. The power requirements of different computer equipment differ and should be considered and catered

for, prior to purchasing and Installation.

- Capacity – The required Capacity for the Server Room and Data Centre must be estimated and documented.
- Voltage Standard- The required Voltage for each Computer Device differs and should be known before installation.

6. **Alternative Power Source:** In order to ensure system availability and improve resilience, all judicial bodies are encouraged to build and maintain alternative power sources for their equipments and Data Centers or Server Rooms. Technologies to consider include UPS, Battery Banks and Inverters as well as Solar Power etc. Adequate redundancy shall be ensured.

7. **Climate Control:** It is essential that an ideal air-conditioning system be installed in all computer rooms to control temperature and humidity. Specific temperature requirements for some computer equipment may be found in their respective manuals. Also, provision should be made for backup air-conditioning system to ensure round-the-clock service.

8. **Physical Security**

- ***General Security*** – The premises of the Server Rooms and Data Centres must be well secured and policed. Age old physical / manual security efficiently helps to deter physical theft of equipment, arson and other forms of destruction of assets.

- **Electronic Locks and Access Control System** – Courts and Judicial Bodies are highly encouraged to use Electronic Locks and Access Control Systems, on doors leading to ICT facilities. Some Electronic Locks are stand-alone which means that such Locks have an in-built electronic control assembly. An Access Control System is however more encompassing as it usually includes series of Electronic Locks connected to a Remote (Access Control) System. This offers many useful functions including ability to easily and remotely grant or revoke access rights, transaction logging, and access report generation. There are many types of Access Control Systems to choose from. These include Biometrics (involves the use of Fingerprints, Voiceprints or Retinal Scanning for identification), RFID (Radio-Frequency Identification), and Keycards and Security Tokens.
- **Power Supply to the Lock:** It is essential that power supply to Electronic Lock and Access Control Systems be constant. Hence, it is necessary to provide battery power backup. The access control system should also be connected to the UPS if it is installed.

These guidelines can be applied to Server Rooms of varying capacity. The aim is to provide a generic framework, which can be suitably tailored by the respective court complexes based on the specific hardware and network components that are installed. Kindly note it is imperative to follow the hardware and network installation manuals, which are provided along with the equipment.

2.3 Network Infrastructure

2.3.1 Local Area Network

When it comes to network design, one of the most important decisions to be made is choosing and installing the right cable for the network. For new installations, a minimum of UTP Category 5e cabling for both voice and data is highly recommended. Properly designing a LAN requires building a robust and redundant network from the top down. A fault tolerant and redundant network can be achieved by structuring the LAN as a layered model and developing the LAN infrastructure one step at a time. Once these layers have been designed properly, then the following network services such as Domain Name Services (DNS), Dynamic Host Configuration Protocol (DHCP) can be added.

All UTP cables are to be run internally to the building and must not run between buildings. No UTP cable is to be run on the exterior of any building. No cabling is to be run in lift shafts or airflow areas. Cable routes are to be agreed to with ICT Networks in advance. Various hazards like asbestos areas need to be taken into account. All vertical cables shall be secured to installed tray at intervals as recommended by the cabling manufacturer. Care must be taken to avoid close proximity of cabling to pipe work.

2.3.2 Wireless Networks

All judicial organizations are encouraged to implement wireless network within their various localities. Wireless network adapters are required for each device on a wireless network. All newer laptop computers incorporate wireless adapters as a built-in feature of the system. Separate add-on adapters must be purchased for older laptop PCs; Security concerns become very high when wireless components are to be added to the network. For the wireless network to be of a good standard, the following considerations are essential:

- **Site Surveys and Wireless Signal Obstacles:** Access points should be placed in a position that does not broadcast the network to the public or invite security issues and wastes bandwidth needed by the organization. Placing access points intelligently will support the most users with the fewest number of access points. Site survey can be expensive but speeds deployment and reduces the number of access points by locating them correctly.
- **Changes in Network Infrastructure:** When planning for user capacity, consideration should be taken of laptops and some wireless-enabled desktops. For instance, handheld devices like iPhone, iPads, PDA's and many more will definitely access the network. The network hardware, software, and management processes will surely change as more wireless devices are added. The addition or expansion of a WLAN should be used to examine and update existing infrastructure.
- **Router Upgrade:** A wireless network will have a different network address range than the wired network, and the router must support at least two network ranges. Courts can also provide a "guest network" login at the lobby or throughout the building. This requires another network address range that should be separated from all other internal network resources. Therefore, a guest may access the internet connection, but might not be permitted within the network. If an existing router does support WLAN connections, and the router is more than three years old, upgrading is recommended. Wireless networks require authentication protocols that have changed drastically over the last few years. Older routers are less secure, and often do not work at all with newer security protocols included on the most recent laptops and other devices.
- **Re-think Security:** Wired networks have a great security edge. Hackers

have to be inside your building to connect to your network. Wireless networks, especially when configured incorrectly, broadcast to the world. Security must be ratcheted up a couple of notches when wireless is added. Every wireless access point sends an SSID (Service Set Identifier) a unique number attached to wireless data packets to differentiate that WLAN from others. However, this should not be confused with a security measure, because changing SSID from the default setting and turning SSID broadcast off, only slows down hackers by about sixty seconds. This is a network identifier, not a security tool. Changing it from the default for easier internal management does not block threats.

- **Clamp Down on Unauthorized Access Loopholes:** Regular sweeps should be made with wireless monitoring tools to find and quickly close both vague access points and the Ad-hoc mode. Discourage such experimentation by users by ensuring everyone who wants wireless access has it, and by offering to solve wireless problems for users immediately. Users unhappy with IT are most likely to "help" IT by creating their own wireless networks.
- Security protocols change regularly, and updated implementations of popular security tools offer much better protection than older hardware and software. This may mean updating some firmware on wireless access points, or replacing an older router that cannot be updated. Wireless budget needs do not stop when the network is turned on.
- **Always plan for security upgrades.** Test for security leaks, like rogue access points, regularly, and that may mean buying tools as the wireless user base increases. Keep your software, including on clients, wireless access points, and routers, up to date. Most of the time, a firmware upgrade will be enough. Be prepared that older equipment will reach a point where it

must be replaced, and that point will usually be decided by a needed security upgrade.

2.3.3 Wide Area Network

- Each Judicial body should strive to implement Wide Area Network in order to utilize shared services (such as unified communications, intranet portal, and corporate emails etc.) and ensure judicious resource utilization.
- The WAN will connect each judicial body to various components units of the Judiciary that will be centrally controlled by the National Judicial Council.

2.3.4 Internet Connectivity

Internet access is a service that provides access to the global system of interconnected computer networks. The Internet is a crucial operational and research tool and every judicial body is encouraged to have high speed Internet connection. Judicial Officers should be provided with broadband connectivity in their chambers and their official residences to enable continuous access to the Internet and intranet with appropriate security.

Bandwidth for the Internet service should be provided by the Internet Service Provider, which should be selected after a thorough assessment of the facilities they have and the technology that can be deployed. The technology should be one that is recent and cost effective for smooth operations of the organization's data needs. Internet connectivity should be routed through a dedicated server with appropriate security to prevent intrusion into the organization network including the use of effective and appropriate firewalls.

The numbers of nodes in a court complex shall determine the number and configuration of switches and routers. To this end, care must be taken to assess the bandwidth requirement of the organization and provide a sustainable bandwidth that can drive day-to-day operations

2.3.5 Hardware

The input of the ICT department must be sought prior to the procurement of any Information Technology Hardware or Software. The ICT Department should be responsible for vetting requisitions for IT equipment on behalf of any Department prior to obtaining approval to procure such equipment.

Equipment will only be ordered according to ICT specifications in accordance with international best practices. The ICT Department should have a standard set of procedures for acquiring new hardware. This procedure should ensure that new equipment is configured correctly and that all IT security measures are addressed. These include the set up of passwords, anti-virus software and security, etc.

The ICT department will provide standard models for desktop and portable devices. Departments are expected to select from these Standard Models except where there are specialist needs where greater computing power is required.

2.3.6 Software

All software acquisitions and applications requirements must be reviewed and processed through the ICT Department to ensure compatibility with the network architecture and software licensing restrictions of the organization. An ICT Department will review and analyze the desktop and server equipment for which the software request is being made. This is to ensure that the appropriate

hardware or software is identified and that any software requested will not interfere with existing software within the organization.

Only software that is properly licensed and approved for use may be installed on the computer systems, including personal computers (PCs) and servers. This requirement also applies to freeware, shareware and demonstration software. IT technicians, end users, and any other officer who is authorized to approve the installation of software on organisation hardware must be knowledgeable of applicable license requirements and ensure that the use of the software will not violate any restrictions imposed by the software publisher.

All software (including any program disks, licensing materials, and other supplemental materials included in the software purchase) must remain in the possession of the ICT Department at all times. These materials may only be removed from the ICT Department storage location by an authorized employee who provides written authorization from his/her Departmental Head.

Each organisation must ensure that their software and applications are up-to-date by discontinuing any product that has had its support life cycle outdated. Available upgrades must be acquired as soon as available, as outdated software can lead to problems as well as system crashes and may lack features that can be found in up to date versions of the software. Old software may even leave the organization vulnerable to cyber-attacks. It must be noted that outdated software is a security and performance problem for every PC user.

2.3.7 Customized Software and Enterprise Resource Planning (ERP) Software

Judicial bodies are encouraged to acquire and implement state-of-the-art customized software and / or ERPs. Adequate business cases and user requirements must be developed and documented before the selection of appropriate customized software or ERPs. The key deliverables of the enterprise software project must be ascertained. The project must be properly managed by the ICT department to ensure compliance with the network architecture. The software must be subjected to the following functions:

- Business Analysis
- Requirements Specification
- Interactivity
- System integration
- Product maintenance
- Technical skills and expertise required to maintain the project

2.4 Communication infrastructure

2.4.1 Web Portal

Each judicial body must have a current, educative, informative and qualitative website which will have information on various aspects of the organization that is beneficial to judges, legal practitioners, court officers, general public, etc. The website would contain details of the structure of various operational arms of the judicial body, history, jurisdiction, rules, judges profile, location map, types of courts, contact details, guidelines, Bar Associations, case-status, judgments, orders, applications, etc.

The website should be comprehensive and informative with linkages to the National Judicial Council and National Judicial Institute portals. Other features of

this site should include the Court calendar, cause list, a list of FAQs (Frequently Asked Questions), etc. The website is the first contact the world has with the Nigerian Judiciary and therefore must be able to meet the yearnings of whosoever is visiting the site for information. The website must be dynamic and should provide for feedback mechanisms from the public. A valid email address through which the public can communicate with the court must be specified on the website and all enquiries are to be attended to with the utmost urgency as required.

2.4.2 Intranet / Portal Services

Each judicial body is encouraged to have an intranet portal, which will serve as the gateway that unifies access to all enterprise information and applications in the organization. The intranet portal will contain information as related to court cases, case scheduling, electronic notice boards, staff matters, internal memos, events notification, etc.

2.4.3 Email Services

Email is an efficient and timely communications tool. Appropriate use of an email system can enhance productivity and intra-judicial communication, but inappropriate use can conflict with judicial policies and compromise availability of the system for all. All judicial bodies are encouraged to acquire corporate email addresses registered with appropriate authority established for “.gov.ng” domain administration, such as NITDA or Galaxy Backbone. The usage of the corporate email as a means of official correspondences between officers of the organization should be encouraged while the use of private email addresses or publicly available email services, for instance yahoo, gmail, hotmail, etc., should be avoided. There should be dedicated mail server fully fortified with antivirus

through which every officer can easily access his / her mail

2.4.4 Portable Devices

As technology and business demands move forward, there have been introductions of many devices that can be classed as Portable Media (such as iPads, Blackberry, Handheld Scanners, Portable Printers, etc.). Acquisition of portable devices should be reviewed by the ICT Department. Only devices which have been built to ICT published standards and/or from approved suppliers, should be attached to the data network. This should ensure that appropriate security controls have been built into the implementation. Once received, the user is not authorized to change any security device setting without reference to the ICT Department, as this may affect the security of the device, or stop it functioning with the supplied service.

Bring Your Own Device (BYOD) devices should only be allowed where they meet in-house security standards. Hence, all intending users of BYOD must seek approval from the ICT Department.

2.5 Court Technologies

2.5.1 Case Management Software

All judicial organizations are encouraged to implement an efficient and robust Electronic Case Management Software. A case management system is an enterprise application developed specifically to improve service efficiency in handling cases in court. The manual way of operation in the court may be replaced with a systematic, all encompassing and secure channel through which cases can be managed. This should be accessible to authorized Judges and authorized court staff, while other pre-determined aspects of the system should be accessible to all parties to cases and the general public at large, for instance

the cause list.

The system should automate and track all aspects of a case life cycle from initial filing through to disposition and appeal. This ensures fast, simple access to court case information enhances productivity, accuracy and efficiency. By producing various forms and reports, case processing will also be accelerated.

The system must be web based on a shared network with appropriate technologies deployed and should generate user-friendly reports that can assist Judges and other justice professionals towards informed decision-making and enhance overall effectiveness. The system should be able to automatically communicate information to approved recipients via SMS and email. The system should have interfaces for electronic data exchange between the other different levels and jurisdictions of courts.

2.5.2 E- Filing.

All courts are encouraged to implement Electronic Filing of Cases in their various jurisdictions. E-filing is an electronic system of filing cases online. This easy-to-use system will allow lawyers to file documents directly with the courts over the Internet and allows courts to file, store, and manage their case files in an easy-to-access, transparent way. This service will be charged through the internet banking system for payment of case filing. The e-filing system uses standard computer hardware, an Internet connection and a browser, and accepts documents in Portable Document Format (PDF).

2.5.3 Electronic Document Management System (EDMS)

Some businesses use more paper than others. The Courts are a typical example of

this. Records are created for each court case and must be accessible to all the parties involved, which means generating multiple copies. Storage and retrieval of manual paper documents can be very laborious, cumbersome and prone to risks both natural and human.

All judicial organizations should endeavor to acquire and install/implement an electronic document management system in order to reduce volumes of paper consumption and hasten information storage and retrieval. Benefits of adopting EDMS include:

- Multiple users will have access to the same electronic copy of court case and court record documents;
- The search and retrieval of all records and associated files and documents are simplified;
- OCR Documents allows for context based search;
- Man hours required for storage and retrieval of scanned and indexed documents is far less; and
- Electronic documents are easier to secure from alterations and damage.

2.5.4 Virtual Library

Judicial Organizations are encouraged to establish a Virtual Library for their development and growth. A virtual Library refers to all the library resources that are available online through computers and databases. These are different from the open internet, as the contents have restricted access. An e-Library is a repository for all types of books that you need to store and share online. Full document control allows you to set access permissions for files and keep every version of a file. Each judicial organization is encouraged to subscribe to online libraries in order to grant judges and officers access to pertinent articles, databases, books, services, and resources through the E-Library.

2.5.5 Video Conferencing

The use of video-conferencing technology is greatly encouraged in the Judiciary. Video-conferencing can be used to connect people in different physical locations especially for critical meetings and discussions. Videoconferencing systems can also be used to enable testifying witnesses “appear” in court without having to travel to the courtroom. Expert witnesses, prisoners, and various other witnesses can provide the same testimonies from remote locations. From the prison, prisoners will see and hear everything that takes place in the courtroom and will be able to answer questions posed to them by the judges and lawyers. Videoconferencing in the court system offers significant cost savings and improved security by reducing the need for high-security prisoner transport. The entire courtroom experience will be made shorter, safer and more cost-effective. Caution should be exercised in the selection of appropriate Videoconferencing technology in terms of cost, compatibility and security. The ICT department should do a thorough requirement analysis and business case before the final adoption of a particular Videoconferencing technology.

2.5.6 File Tracking

All judicial organizations are encouraged to implement a state-of-the-art File Tracking system. Bar Code and RFID (Radio Frequency Identification) File Tracking Software Systems allow for total records management systems on both an enterprise and local level. File Tracking Software Systems will save filing labor, file searching time, prevent files from disappearing, keep items secure from unauthorized perusal, automate file creation, allow for searching and reserving checked out items, automated on demand label printing, archiving from automated retention schedules, set up trailing document checklists, file disposal and many more features which all help to reduce loss and costs.

With the File Tracking System in place, the court will be able to automate the tracking and management of case files (also known as case jackets). This will spare employees a very labor-intensive time consuming manual search for files and exhibits.

2.5.7 Unified Communication System and IP Telephony

All judicial organizations are encouraged to implement Unified Communications in their organizations and various divisions. Unified Communications is the convergence of traditional forms of messaging; telephone, voice mail, fax with newer electronic communications such as email and instant messaging. A Unified Communications System will allow access to messaging applications from a variety of devices- PC's, handheld wireless devices, or telephones, from both the intranet and the internet. Unified messaging will allow users to respond quickly to any type of incoming communication—whether they are onsite or remote.

Unified Communications goes beyond sharing of resources and exchanging information. It requires that court officials work closely with each other to achieve outcomes that would not be possible without collaboration. Judicial Organizations need effective communications solutions that will help them face the challenges that affect their ability to serve the public.

This is a solution that allows judicial organizations to eliminate telephone expenses incurred in calling their divisions and to make high quality voice and video calls within their private telephony infrastructure at NO COST! It enables Judicial Divisions route their inter-divisional calls through the existing Wide Area Network (WAN) and hence, avoid Public Switched Telephone Networks (PSTN) tariffs and "Access Charges".

2.5.8 E-Court Systems

The use of technology in the courtroom is highly encouraged. The E-Courtroom system is an evidence presentation tool that utilizes a dedicated computer, electronic wall-display, data monitors, DVD/VCR, document presenter, printer and integrated audio system. Appropriate use of technology to display or play evidentiary exhibits or illustrative aids changes the dynamics in a courtroom in productive and helpful ways. Courtroom technology is a means for putting evidence before everyone in the courtroom—the Judge, the Lawyers, the Courtroom Support Staff, and the Public simultaneously.

The E-Court System should be implemented to serve as the heart of the well-concealed electronics in all the courtrooms. The E-Court System allows counsel to switch from displaying exhibits, real-time transcripts, video recordings or multimedia presentations with the push of a button. Some of the advanced technology which may be integrated into the courtroom includes: a document camera that can be used to display exhibits such as documents or medium-sized three-dimensional objects; VGA connections to display multimedia presentations or images from a portable computer; documents, images, etc. can be displayed on any monitor in the courtroom; a color video printer that can then produce a color print out of any image displayed through the E-Court System;

Security of E-Courts Infrastructure and System is of paramount importance. A system must be put in place that provides secure access to case information for appropriate parties. All the information regarding use of E-Courts facilities must be duly recorded and stored in a secure medium. These include maintaining proper records of e-file minute entries, notification/service, summons, warrants,

bail orders, etc. for ready and subsequent references. E-Courts must ensure integration among court and justice systems.

2.6 ICT Assets Maintenance

Each judicial organization must have an ICT assets maintenance policy. IT Asset Management is an important business practice that involves maintaining an accurate inventory, licensing information, maintenance, and protection of hardware and software assets utilized by an organization. Organizations need an inventory of the IT hardware assets used to support their operation and automated solutions. Judicial Bodies must know what IT hardware assets they have and where those assets are located in order to protect them. When determining what information to track for a particular asset, consider the following:

- Specific information pertinent to the particular hardware asset;
- Physical location;
- Unique identifier of the asset;
- Support contract and information.

Each judicial body should address distribution, purchase, audit, and removal of the licenses used in day-to-day business. Properly tracking licenses facilitates efficient use of resources and reduces the probability of violating licensing agreements and laws.

All judicial bodies should ensure that they establish adequate support and maintenance contracts with all ICT equipment suppliers and vendors. This should also be a determining factor in vendor selection. In addition, ICT equipments must be adequately labeled.

2.7 National Judicial Council Data Centre and National Judicial Institute Resource Centre

It is imperative that the National Judicial Council establishes a Data Centre to coordinate the ICT efforts of the Nigerian Judiciary. The establishment of a Central Data Centre for the Nigerian Judiciary at the NJC will serve as the location for Servers and other equipment essential for unified communication and shared services, such as common Intranet email and Intranet Portal for the exclusive use of the Judiciary. The Data Center must offer- Cloud, Virtualization, Managed Backup, Storage, Firewall, and fiber backbone interconnecting other data centers in the Judiciary.

It is also recommended that a Judicial Resource Centre be situated at the National Judicial Institute. This IT facility will provide access to legal research tools which facilitates the various components of the judicial process-the legal profession, the judiciary, courts (as institutions), legal doctrines, legal cultures, etc. Its purpose is to promote scholarly work on law, courts, and judicial processes from a comparative perspective, i.e., one that seeks to explain similarities and differences within various countries. Furthermore, the Judicial Research Centre is to improve speed and quality of justice delivery as well as the overall transparency of courts operations. Easy access to legal information and state-of-the art information systems will help judges and magistrates in conducting research and writing judgments, as well as finding references and case citations. This Resource Centre should be sited at the National Judicial Institute with a back-up Centre situated at the National Judicial Council.

2.8 Assets Disposal Policy

The ICT Department with any other appropriate authority will coordinate the disposal of IT assets, equipment, and hardware utilizing one or more of the

methods prescribed below. It is imperative that all disposals are done appropriately, responsibly, and ethically with the judicial organizations objectives in mind. The following rules must therefore be observed:

- **Obsolete ICT Assets:** As prescribed above, “obsolete” refers to any and all computer or computer-related equipment that no longer meets requisite functionality. Identifying and classifying IT assets as obsolete is the sole province of the ICT department.
- **Reassignment of Retired Assets:** Reassignment of computer hardware to a less-critical role is made at the sole discretion of the ICT department.
- **Trade-Ins:** Where a piece of equipment is due for replacement by a newer model, reasonable actions must be taken to ensure that a fair and market trade-in value is obtained for the old IT asset against the cost of the replacement.
- **Income Derived from Disposal:** Whenever possible, it is desirable to achieve some residual value from retired or surplus IT assets. Any and all receipts from the sale of IT assets must be kept and submitted to the appropriate department.
- **Decommissioning of Assets:** All hardware slated for disposal by any means must be fully wiped clean of all judicial organization data. The ICT department will assume responsibility for decommissioning this equipment by deleting all files, licensed programs, and applications. In addition, any property tags or identifying labels must also be removed from the retired equipment and thereafter can be auctioned to an employee of judicial organizations.

3 IT Governance and Control

3.1 Judicial Information Technology Policy Committee

The Judicial Technology Policy Committee (JITPO-COM) shall be the regulatory authority for the implementation of the policy. The Committee shall have a Secretariat in the National Judicial Council with requisite staff employed by the Council. The committee shall have its meetings from time to time to review the level of compliance in each judicial organisation and to review and renew policies and action plans.

3.2 ICT Committee

Each judicial organ must establish an ICT Committee to oversee the implementation of ICT projects. In addition, the ICT committee shall be responsible for liaising with the JITPO-COM and implementing the JITPO.

In addition, the Committee's functions shall include:

- Supervising the ICT Enterprise Architecture and Information Architecture;
- Overseeing ICT policy and standards
- Approving major ICT project plans and roadmaps;
- Providing direction to management in relation to ICT;
- Monitoring and acting on risks associated with major ICT projects or ICT operations;
- Performing benefit Management of all ICT projects

3.3 Benefit Management

The aim of benefits management is to increase the successful delivery of quantifiable and meaningful business benefits to an organization. It is an integral part of change management. It details how an organization will benefit from change and provides a framework for identifying, planning, measuring and actively managing these benefits.

The aim of benefits management is to ensure that all projects provide clear benefits – as opposed to simply making sure the project is completed within specific time and resource limitations. Therefore, while the success of project management is to deliver on time and on budget, the success of benefits management takes it one step further – to ensure that the initiative delivers the expected results.

3.4 Information and Communication Technology Department.

All judicial bodies must immediately create or upgrade their ICT units to a full-fledged department. Each judicial organization should restructure the ICT department to include industry standard ICT functions such as System Analysis, Web Development, Database Administration, Network administration, System Architecture, System Support and IT Service Management. Federal Judicial Service Commission should review the current scheme of service to professionalize the Information Technology Cadre.

3.5 ICT Skills Requirement

Judicial bodies should strive to attract and retain up-to-date and skilled ICT personnel. This could be achieved by creating incentives commensurate to industry standards. The IT personnel to be employed must be skilled in any of the following: Linux; Windows Server Operating System; Open Office Suite; PHP, ORACLE, SQL Server and programming in JAVA/C++; Web Designing; Server Administration as well as a good knowledge of maintenance / troubleshooting of computer hardware / software / network management, etc.

3.6 Capacity Building

Training of judicial officers and the court staff is a vital component of the computerization process. The training process should be a continuous exercise. Capacity building programmes must be tailored to meet current challenges as well as skills requirement of up-to-date IT resources. The ICT Committee and the ICT Department must design capacity building plans in their roadmaps.

3.7 Budget for ICT Infrastructure and resources

There is a need for all judicial bodies to continuously review their budget provisions for ICT infrastructure and resources to reflect the yearnings of all stakeholders. It is also essential that ICT budget performance must be closely monitored by the ICT committee and JITPO-COM.

3.8 Judiciary IT Audit

An IT Audit Unit should exist within the Planning Research and Statistics Directorate of the National Judicial Council which should be responsible for monitoring and reporting on progress, compliance and execution of all ICT projects in the Judiciary. Such audit report should be reviewed by the PRS department and JITPO-COM for necessary action.

3.9 ICT Vendor Selection

In order to derive maximum benefits from all ICT projects and supplies, all judicial bodies must ensure compliance with existing Government Procurement Act. In addition, special care must be taken to engage only qualified and well established ICT vendors and suppliers.

3.10 Security

All ICT infrastructure and resources should be implemented with security considerations. These include network plans, database designs, software designs, access controls etc. All ICT staff should have some elements of ICT security training for example Certified Ethical Hacker (CEH), Certified Information Security Manager (CISM), Certified Information Security System Professional (CISSP), Certified Information System Auditor (CISA) etc.

3.11 Adoption of Industry Frameworks

It is essential that international industry frameworks be adopted by all judicial bodies in the establishment, acquisition, management and administration of ICT in their respective jurisdictions. These frameworks are time-tested best practices guaranteed to ensure value delivery from ICT investments. Examples of these frameworks include:

ITIL – Framework for providing quality IT service within an organization

COBIT - an IT governance framework and toolset that allows managers to bridge the gap between control requirements, technical issues and business risks.

PMP – Framework for effective IT Project Management

CBAP – Framework for effective end user requirement engineering and management

All judicial organizations should endeavor to train their ICT staff on the above frameworks.

Conclusion

Information technology is being used in almost every field now to achieve hitherto unheard-of speed, efficiency and effectiveness in service delivery. The judiciary should not be an exception. There is a need right now to make the judiciary more accessible, transparent, speedy and efficient. This is hardly possible without the use of information technology in the judicial sector. Therefore, the concept of e-Judiciary comes in. We should always keep in mind that e-Judiciary is not just about “e” or computers. Its basis is judiciary thus, should be primarily concerned with providing justice to the citizens. It should fulfill what justice seekers demand from the system, that is, speedy, less expensive, quality, corruption-free justice. Also, transparency and accountability of the judicial system should be maintained. It is a process of transforming the judiciary, not changing or translating it. It is the addition of information and communication technology to the existing system in a stable and incremental manner.

Acknowledgement

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Judicial Information Technology Policy Committee

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