

**National Pension Commission
Pension Fund Administrator
ICT Guidelines**



1.00 Introduction

The following are the ICT guidelines serving as the minimum IT requirements for the licensed Pension Fund Administrators in Nigeria.

The key objective is to midwife a system that is robust, efficient and transparent in its entirety, based on principles required to assure the success of a Define Contribution Pension System.

The ultimate goal of the system is to guarantee the payment of benefits to the affiliates of the Pension System

1.10 General

Pension processes require transactions and associated data to flow seamlessly between PenCom, PFAs, contributors and other stakeholders.

A proactive management of the Pension Administration environment is imperative to a successful running of the system. Consequently, the desired system is based on the following major thrust:

- ☞ To enable effective and efficient customer service to the delight of the contributors.
- ☞ To provide cost efficient operations.
- ☞ To facilitate easy flow and accuracy of information that will serve as the life blood of the Define Contribution Pension Scheme.
- ☞ To make the administration of the Pension Systems transparent to all participants
- ☞ Provide for easy collaboration among all participating entities
- ☞ Provide for the simplification of the contribution procedures
- ☞ Guarantee the adequate distribution of payments to the individual accounts
- ☞ Enable Security in the flow of money and information
- ☞ Guarantee accuracy on the process of payment of benefits

The key issues to be considered for efficient information flow and effective system interoperability among the scheme's stakeholders are as follows:

- System Management: Hardware, Operating System, Application, Database, Storage and Backup.
- Network Management: Telecom infrastructure Management, Configuration Management, Performance and Security.

**National Pension Commission
Pension Fund Administrator
ICT Guidelines**



2.00 Hardware

The desired system should have all the standard specifications found in a server used for mission critical operations like Pension Administration Package system, including a high degree of interoperability with the other RISC base system and devices.

2.10 Servers

As a minimum requirement, each PFA should have a high grade Application Server, two Database Servers, one to serve as a backup, and a Communication Server.

2.20 Auxiliary Devices

1. Security Firewall.
2. Intrusion Detection Devices.
3. Modems & Routers
4. Enterprise Antivirus.

2.30 Communication

1. VPN link to PenCom.
* Through any of the appropriate medium (VSAT, Leased Line, etc.)
2. Broadband Internet access.

2.40 Call Center Systems

There will be a need for a well equip call center to take care of contributors' enquiry and other stakeholders' information needs. IVR and other business intelligent applications will be highly desired.

2.50 Collection/Remittance

Collection will be operated through collaboration with existing payment platform like switching systems. Consequently, the expected system will need to be enabled to integrate with major e-payment platforms.

3.00 Other Issues

3.10 Disaster Recovery

The key disaster recovery methods should include:

- Mirroring of the database with RAID storage implementation.
- Complete redundancy of all components of the server.
- A Standby server to take over the functional server in case of server failure.
- Regular backup of the database onto a different physical location in the form of Compact Disk or DAT Media.

**National Pension Commission
Pension Fund Administrator
ICT Guidelines**



3.20 Security Features

The key security feature should include:

1. Biometrics enabled User Security features.
2. Access Permissions Restricted to the authenticated users only.
3. Data Security to be done at:
 - Data entry level restricted to privileged group only.
 - Storage level.

4.00 Software:

All the standard features found in a Pension Administration Package System, including a high degree of integration with the other standard Front Office Operations and Back Office Applications, are expected.

The system should be based on standard ODBC database platform running on a legacy Operating System at the back end.

ITEM NO	Requirement/ feature
1.	The system should be capable of interfacing with other external systems and reduce the dependency of processes on manual intervention and paper flows.
2.	Utilization of open architecture tools for scalability and compatibility with other systems (web, legacy systems) or databases (Oracle, DB2, Ingress Server 7, Sybase).
3.	The system is expected to be able to support a growing database that could support a growing number of contributors, in the region of 2 Million within the next six months.
4.	<p>system should consist of the following modules, among</p> <ul style="list-style-type: none"> - others: Registration: <ul style="list-style-type: none"> o Employees. o Employers. o Affiliates/Agents. - Retirement Savings Account Management: <ul style="list-style-type: none"> o Transfers. o Retirement/Benefits. o Voluntary contributions. o Sales. o Customer Relationship Management. o Self-Service Centre. - Investment & Asset Management : <ul style="list-style-type: none"> o Portfolio management (with valuation, limit administration). o Multiple Funds management



**National Pension Commission
Pension Fund Administrator
ICT Guidelines**

	<ul style="list-style-type: none"> - Risk Management: <ul style="list-style-type: none"> o Risk Modeling & Measurement concepts: <ul style="list-style-type: none"> • Risk Types (market, credit, liquidity). • Risk Factors (interest rates, exchange rates, price indexes, stock indexes, etc). • Risk Concentration, volatility, sensitivity analysis, etc. - Accounting Management. - Transfer of accounts between Pension Fund Managers - Collection & distribution of payments/Remittances. - Research/Statistical and Analytical System. - Executive Information System. - Interactive Web Site
--	---

ITEM NO	Requirement/ feature
5.	All the modules of the system should be tightly integrated with one another. A multi-tier business architecture which offers differentiated access, security and look and feel for different types of users or pension related businesses.
6.	The system should be easy to learn to use, as would be reflected by an intuitive user interface and helpful tools, e.g. wizards, to introduce key concepts to new users.
7.	The system should be Web-enabled and web transaction enablement
8.	Ability of the system to link to an Intranet site and facilitate occasional users sending information to the system and obtaining reports and other information from the system.
9.	The system should offer a very high degree of reporting flexibility and offer a range of easily customizable pre-defined report templates with automated procedures, e.g. wizards, to tailor reports (content and formatting) to suit individual preferences.
10.	The system should be compatible with the standard payroll packages to enable contribution processing providing automated collection and reconciliation from HR systems.
11.	Facility to accept and validate files of postings generated by external systems.
12.	The system should have the ability to output reports into spreadsheet format.
13.	The system should be able to link directly to standard word processing package that can enable mail merging and other office automation operations.
14.	The system should be capable of integrating standard Biometrics devices.
15.	User defined standard reports should be available on line.
16.	The system should be available in a full client / server version, using an industry standard database at the server.

**National Pension Commission
Pension Fund Administrator
ICT Guidelines**



17.	The system should be capable of performing selective, incremental and full back up and recovery.
18.	The system should have document image processing (DIP) facilities, including the ability to display scanned images of contributor forms and other source documents as part of standard enquiry routines.
19.	The system should have full support for multi-user operation.
20.	The system should have the option to post on a batch basis, with a full range of batch handling facilities, including the ability to print unfinished-posted batches, allow users to create but not post batches, with only authorized users permitted to post batches.
21.	The system should have the option to allow specified users to post on a real time basis, with each transaction posted to the system as it is entered.
22.	The system should have the facility to attach free text memorandum notes to any header record/transaction, and to view such notes on demand.
23.	Ability to print hard copy output on either pre-printed or blank stationery.
24.	The system should have a context sensitive on line help facility, with help available at field-level.

ITEM NO	Requirement/ feature
25.	Ability to capture contributions offline either on diskettes, flash drive, CDs or any other storage media and update at a later time.
26.	Ability to handle registration of contributors – employers/ employees on selected media (diskette, CD, etc).
27.	Capability to automatically check that the value of the sums collected and that of the amount on the instruments of payment are the same (equal).
28.	Capability to distinguish a batch of transaction to be made up of each schedule from a given employer.
29.	Capability to ensure that each batch balances before acceptance into the database.
30.	The system must be able to facilitate the electronic/biometric identification of claimants. This could be by any or combination of the following: Photographic identity; Signature verification; Thumbprint digitalization; and It should be capable of identifying the claimant online by accessing his biodata.
31.	It should be able to generate up to date information of all contributors that will be due for retirement pension on a regular period.
32.	Capability to generate the claim history of every claimant and also to flag any duplicate claim for the same benefit.

**National Pension Commission
Pension Fund Administrator
ICT Guidelines**



33.	The system should provide sufficient security of access to allow user accounts to be defined for each type of user and segregation of duties to be maintained.
34.	The system should be able to maintain a permanent log file which keeps information of all creates, edits, deletes or accesses. Ability to access log files only by authorized personnel. Ability of information stored to include time and date of operation, function performed, and user identification.
35.	Ability to produce exception reports on users who modify the system configuration and static data.
36.	Web enabled to facilitate interaction with other stakeholders (PenCom & PFC) and also enable self-service by Employee & Employer.
37.	Capability to integrate with the National Databank using standard tools.
38.	Automated updating of the contributor's portfolios with transactions.
39.	Capability to create and maintain Retirement Savings Accounts.
40.	Capability to distribute aggregate return on fund investment across individual RSA.
41.	Capability to enable: <ul style="list-style-type: none"> • Customer Relationship Management. • Recording of all payment related transactions for each contributor. • Documenting all transfers related activities. • Conducting reconciliation of customer accounts.
42.	Enable valuation of investments and risk management of the contributors' funds.
ITEM NO	Requirement/ feature
43.	Enable Retirement Phase management by providing: <ul style="list-style-type: none"> ③ Withdrawal facility options with detail procedures ③ Purchase of Life Annuity Option with detail procedures ③ Facility for redemption of redemption bond ③ Facility for assessing accrued benefit amounts by the appropriate contributors.
44.	Enable Flexible investment processing for both internal and external fund management, interest based, unit linked and unitized with profits processing and life styling
45.	Enable computation of financial ratios.
46.	Enable Comparison of each investment portfolio against regulation limits.
47.	Enable analysis of : <ul style="list-style-type: none"> ③ asset quality of PFAs portfolio. ③ asset concentration of PFAs portfolio. ③ diversification of income source of PFAs portfolio. ③ maturity mismatch. ③ future cash flow requirements of PFA. ③ overall rate of return of investment portfolio. ③ return of each asset class. ③ market and industry risk of each asset class, etc.

**National Pension Commission
Pension Fund Administrator
ICT Guidelines**



48.	Immediate recall of any information the system statistically manages (e.g. contributors' historical data, display of the contributors' portfolios for any moment in the past).
49.	The system should be able to generate report into different standard format, e.g. XML, for transition to a designated location.
50.	The system should enable a rules based "engine" enabling flexible and innovative (pension) product design for the provision of an excellent platform for both today's business requirements and for your future needs.