FINAL REPORT OF THE COMMITTEE ON HARMONISATION OF NATIONAL IDENTITY CARDS

MARCH 2006
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EXECUTIVE SUMMARY

The Committee on Harmonisation of National Identity Cards was set up by His Excellency, President Olusegun Obasanjo, to review existing ID card projects and recommend ways of integrating them into a single multi-application card. The Committee’s findings and recommendations are expected to complement the efforts of the Committee on Consumer Credit, which was set-up to look at ways of establishing consumer credit system and infrastructure in Nigeria. The Consumer Credit Committee had earlier identified the absence of a unified and verifiable identity database as a negating factor to the development of consumer credit system in the country.

At the inaugural meeting of the Committee held on 6th September 2005, Members were constituted into three Sub-Committees; Technical, Legal and Implementation to thoroughly address the Committee’s Terms of Reference. The Sub-Committees held several meetings in which global best practices were examined and countries’ experiences were reviewed. The Sub-Committees’ reports were presented to the main Committee and these were deliberated upon, edited and adopted.

The Committee found that the global trend is a gradual move from a single purpose card to a more secure multi-application smart card. Accordingly, the Committee recommends the creation of a new National Identity Database, which will serve as a central source of identity verification. The Database will be connected to existing databases that are relevant to the identification of citizens and residents. The connectivity between the various databases, government departments and law enforcement agencies will be enhanced by the use of chip-based General Multipurpose Card (GMPC) technology, which allows for input of several applications on one card.
It is proposed that an Agency/Commission be established to manage the GMPC project and a bill for the establishment of the Agency has been drafted (copy attached). The Agency/Commission could either be a new independent entity or an existing ID card system could be upgraded to meet the required standards. It is further proposed that an Implementation Committee be established to oversee the establishment of the Agency/Commission and a Public Private Partnership model be adopted for the funding of the project. Finally, the Committee recommends the use of appropriate technology and legal framework to safeguard citizens’ privacy.

Refer to Part 4 of the report for detailed explanations of all recommendations.
COMMITTEE MEMBERSHIP

1. Minister of the Federal Capital Territory (Chairman)
2. Minister, Internal Affairs
3. Minister, Science & Technology
4. Governor, Central Bank of Nigeria
5. Chairman, National Population Commission
6. Chairman, Independent National Electoral Commission (INEC)
7. Inspector-General of Police
8. Director General, National Pension Commission (PenCom)
9. Executive Secretary, National Health Insurance Scheme (NHIS)
10. Director General, Budget Office of the Federation
11. Director General, National Information Technology Development Agency (NITDA)
12. MD/CEO, Zenith International Bank - Mr. Jim Ovia
13. MD/CEO, United Bank for Africa (UBA) - Mr. Tony Elumelu
14. SAGEM SA, France
15. MD/CEO, Zinox Systems – Mr. Leo Stan Ekeh
16. MD/CEO Omatek Computers
17. Dr. Seun Obasanjo, Obasanjo Holdings Limited

CO-OPTED MEMBERS

1. MD, IRIS Smart Technologies Ltd.
2. MD/CEO, CHAMS Nigeria Ltd.
3. Comptroller General, Nigerian Immigration Service
4. MD, ValuCard Nigeria Plc.
5. The Chairman, Federal Inland Revenue Service

SECRETARIAT

1. Abdu Mukhtar
2. Aliyu Aziz
3. Hauwa Yabani
4. Chris Okeke
TERMS OF REFERENCE

The Terms of Reference for the Committee were as follows:

a) Take inventory of all ongoing and completed identification initiatives in both the public and private sectors;
b) Obtain and submit briefs on all ongoing ID card initiatives;
c) Review ID card schemes in various part of the globe;
d) Submit proposals for the harmonization of all ID card initiatives;
e) Propose a verifiable national ID card for Nigerians, including Technical and Infrastructure management of the scheme;
f) Review security, privacy and all civil liberty issues related to the initiative;
g) Propose implementation programme and timeline to Government; and,
h) Look at any other matters that may assist the Committee in undertaking the assignment.

Sub-Committees:

During the inaugural meeting of the Committee held on 6th September 2005, Members were constituted into three Sub-Committees. The Sub-Committees were encouraged to co-opt new members as and when necessary.

The Technical Sub-Committee was responsible for reviewing ongoing ID card initiatives in the public and private sectors, both within and outside the country, and making a proposal for a single verifiable ID Card for all Nigerians with focus on appropriate Technologies, Infrastructure and Security requirements.

The Legal Sub-Committee was mandated to review legal, privacy and civil liberties issues related to the initiative.

The Implementation Sub-Committee was responsible for addressing operational, financial and other managerial issues.
1.0 TECHNICAL SUB-COMMITTEE MEMBERS

The Technical Sub-Committee members as inaugurated by the Chairman of the Committee on Harmonisation of National ID Card, Mallam Nasir el-Rufa’i, include:

1. Seun Obasanjo - O.H.L  
2. C. O. Angaye (DG, NITDA)  
3. Aliyu A. Aziz - (IT Adviser to FCT Minister)  
4. Demola Aladekomo (MD, Chams Nigeria Ltd.)  
5. Yomi Soyinka (Representing MD/CEO, Omatek)  
6. Rouveure Philippe (Representing SAGEM SA)  
9. O. Fisher (Representing IRIS Smart Tech Ltd.)  
10. Obiora Nnoli (Representing Interranetworks)  
11. S. I. Sabon Birni (Representing Ministry of Internal Affairs)  
12. Kyari A. Bukar (MD, ValuCard Nig.)  
13. Leo Stan Ekeh (MD/CEO, Zinox Computers)  
14. Chris Okeke (FCT Minister’s Office)  

Chairman  
Member  
Member  
Member  
Member  
Member  
Member  
Member  
Member  
Member  
Member  
Secretary
### 2.0 INVENTORY OF ID CARD PROJECTS IN NIGERIA

The information was provided by the some of the relevant agencies and solutions providers to the agencies.

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>Size of Database</th>
<th>Biometrics Included?</th>
<th>Type of Card Issued</th>
<th>No. of Cards Issued</th>
<th>Projected No Of Cards</th>
<th>RDBMS used</th>
<th>Year Implemented &amp; Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>INEC Electronic Voters Register</td>
<td>13 Tb</td>
<td>Yes fingerprint (2x)</td>
<td>Paper</td>
<td>58.6m</td>
<td></td>
<td>Oracle Version 9i</td>
<td>2003</td>
</tr>
<tr>
<td>NHIS National Patient Cards</td>
<td>5 Tb</td>
<td>Yes fingerprint (2x)</td>
<td>2D Bar Code</td>
<td>500,000</td>
<td>1,500,000</td>
<td>Oracle Version 10g</td>
<td>2005</td>
</tr>
<tr>
<td>ECOWAS Harmonised E-Passport</td>
<td>Not yet known</td>
<td>Yes fingerprint (4x)</td>
<td>smart</td>
<td>5,500,000</td>
<td></td>
<td>Oracle</td>
<td>In-Progress</td>
</tr>
<tr>
<td>PenCom National Databank</td>
<td>Not yet known</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>Oracle</td>
<td>In-Progress</td>
</tr>
<tr>
<td>National ID Cards</td>
<td></td>
<td></td>
<td>2D Bar code</td>
<td>15,000,000</td>
<td>52,000,000</td>
<td>Oracle 8i</td>
<td>2001</td>
</tr>
<tr>
<td>FRSC Drivers’ Licence</td>
<td>1.25 Tb</td>
<td>Yes fingerprint (1x)</td>
<td>Mag Stripe 2D Barcode By 2006</td>
<td>6m</td>
<td>15,000,000</td>
<td>Oracle 10g</td>
<td>1990</td>
</tr>
<tr>
<td>CBN Staff ID Card</td>
<td>40Gb</td>
<td>No</td>
<td>Bar-code</td>
<td>&gt; 8,000</td>
<td>Microsoft Access</td>
<td>1996</td>
<td></td>
</tr>
<tr>
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<td>------</td>
<td></td>
</tr>
<tr>
<td>Universities Student ID Card</td>
<td></td>
<td>No Biometrics</td>
<td>Smart</td>
<td>200,000</td>
<td>200,000</td>
<td>Sql</td>
<td>2001</td>
</tr>
<tr>
<td>University 1</td>
<td>Yes Fingerprint (10x)</td>
<td>2D Barcode/Mag Stripe</td>
<td>600,000</td>
<td>1,300,000</td>
<td>Oracle 8i</td>
<td>2003</td>
<td></td>
</tr>
<tr>
<td>State Government</td>
<td>Yes Fingerprint (10x)</td>
<td>2D Barcode/Mag Stripe</td>
<td>140,000</td>
<td>&gt;1,000,000</td>
<td>Oracle 8i</td>
<td>2004</td>
<td></td>
</tr>
<tr>
<td>State Gov 2</td>
<td>No Biometrics</td>
<td>Smart</td>
<td>&gt;150,000</td>
<td>&gt;500,000</td>
<td>Oracle 8i</td>
<td>2003</td>
<td></td>
</tr>
<tr>
<td>ValuCard</td>
<td></td>
<td>No Biometrics</td>
<td>Smart</td>
<td>1,300,000</td>
<td>1,500,000</td>
<td>Oracle</td>
<td>1998</td>
</tr>
</tbody>
</table>

### 2.1 Review of ID Card Systems Worldwide

The analysis is categorised into 3 groups:

- Implemented GMPC Projects
- Those at pilot/prototype stage
- Those at proposed/planning stage
### 2.1.1 Implemented GMPC Projects

<table>
<thead>
<tr>
<th>Country</th>
<th>Year of Commencement</th>
<th>Type of Card &amp; Memory</th>
<th>Biometrics</th>
<th>No of Cards issued</th>
<th>Projected No of Cards to be Issued</th>
<th>Current Applications</th>
<th>Future Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>1999 (Voluntary)</td>
<td>GMPC, migrated to 64k</td>
<td>Fingerprint</td>
<td>74,000</td>
<td>-Immigration</td>
<td>-Social Service</td>
<td>-Financial Services</td>
</tr>
<tr>
<td>Brunei</td>
<td>2000</td>
<td>GMPC, 8k</td>
<td>Fingerprint</td>
<td>400,000</td>
<td>-National ID</td>
<td>-Immigration</td>
<td>-Pension</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2001</td>
<td>GMPC, 32K Chip migrated to 64k</td>
<td>Fingerprint</td>
<td>9m</td>
<td>18m by 2005</td>
<td>-National ID</td>
<td>-Driver's licence, border control, transportation</td>
</tr>
<tr>
<td>Russia (Moscow)</td>
<td>2003</td>
<td>GMPC</td>
<td>Fingerprint</td>
<td>20,000</td>
<td>4.5m</td>
<td>-Social benefits</td>
<td>-Transport</td>
</tr>
<tr>
<td>Estonia</td>
<td>2002</td>
<td>GMPC</td>
<td>Fingerprint</td>
<td>1.4m</td>
<td>-National ID</td>
<td>-Travel Card, Voters</td>
<td>-Online Banking</td>
</tr>
<tr>
<td>Taiwan</td>
<td>2002</td>
<td>Health, 32k</td>
<td></td>
<td>22m</td>
<td>-Health</td>
<td>-National ID, Social</td>
<td>-Social, Financial data</td>
</tr>
<tr>
<td>Oman</td>
<td>2004</td>
<td>GMPC</td>
<td>Fingerprint</td>
<td>300,000</td>
<td>2.7m</td>
<td>-National ID, Medical</td>
<td>-e-Government, e-Voting</td>
</tr>
<tr>
<td>Macau</td>
<td>2003</td>
<td>GMPC</td>
<td>Fingerprint</td>
<td>460,000</td>
<td></td>
<td>-National ID</td>
<td>-Driver’s licence, Medical, financial &amp; Educational data</td>
</tr>
<tr>
<td>Country</td>
<td>Year</td>
<td>Technology</td>
<td>Fingerprint</td>
<td>Quantity</td>
<td>GDP</td>
<td>Applications</td>
<td></td>
</tr>
<tr>
<td>----------</td>
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<td>------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Hong Kong</td>
<td>2003</td>
<td>GMPC</td>
<td></td>
<td></td>
<td>250,000</td>
<td>-ID, Banking, -e-Government, -Bus &amp; Metro, -Driving Licence, -e-Certification, -Business functions</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>2003</td>
<td>GMPC</td>
<td></td>
<td>1.5m</td>
<td>65m</td>
<td>-ID, Insurance, Tax, -Welfare &amp; Incentives</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>2004</td>
<td>GMPC</td>
<td>Fingerprint</td>
<td>3m</td>
<td>600m</td>
<td>-ID, medical, -Insurance, Banking, -Financial, social services etc</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>2004</td>
<td>GMPC</td>
<td>Fingerprint</td>
<td>8m</td>
<td>960m</td>
<td>National ID only, -Social Service, -Travel Card, -Financial Services</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>2004</td>
<td>GMPC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Korea</td>
<td>2005</td>
<td>GMPC</td>
<td>Fingerprint</td>
<td>5m</td>
<td></td>
<td>-national id, -e-purse, social services, -travel</td>
<td></td>
</tr>
<tr>
<td>Bahrain</td>
<td>2005</td>
<td>GMPC, 64kb</td>
<td>Fingerprint</td>
<td>600,000</td>
<td></td>
<td>-ID, Driver’s licence, -Medical, financial &amp; Educational data</td>
<td></td>
</tr>
</tbody>
</table>
### 2.1.2 Those at pilot/prototype stage

<table>
<thead>
<tr>
<th>Country</th>
<th>Year of Commencement</th>
<th>Type of Card &amp; Memory</th>
<th>Biometrics</th>
<th>Projected No of Cards to be Issued</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>1997</td>
<td></td>
<td></td>
<td></td>
<td>-medical claims, payments -open doors</td>
</tr>
<tr>
<td>Thailand</td>
<td>2005</td>
<td>GMPC</td>
<td>Fingerprint</td>
<td>64m</td>
<td>-Health, Banking -Incentive Points -E-Certification</td>
</tr>
<tr>
<td>UAE</td>
<td>2004</td>
<td>GMPC</td>
<td>Fingerprint</td>
<td></td>
<td>-national ID, driving licence, border information and medical records</td>
</tr>
</tbody>
</table>

### 2.1.3 Those at proposed/planning stage

<table>
<thead>
<tr>
<th>Country</th>
<th>Year of Commencement</th>
<th>Type of Card &amp; Memory</th>
<th>Biometrics</th>
<th>Projected No of Cards to be Issued</th>
<th>Current Application</th>
<th>Future Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Canada</td>
<td></td>
<td></td>
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<tr>
<td>European Union</td>
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<tr>
<td>Malawi</td>
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<tr>
<td>Netherlands</td>
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<tr>
<td>UK</td>
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<tr>
<td>US</td>
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</tbody>
</table>
3.0 Proposal for Harmonized Identity System

The Committee on Harmonisation of National ID Card was informed by the Honourable Minister of Internal Affairs, Amb. Magagi Muhammed by a letter to the FCT Minister that at the planning stages of the current National Identity Card programme, the intention of Mr. President was to come up with a multiple purpose card. This led to the setting up of a committee with membership from the Independent National Electoral Commission (INEC), the National Population Commission (NPC) and the Federal Ministry of Internal Affairs to midwife the implementation of the National ID Card Programme in the year 2000. However, in response to objections raised against the collaboration in certain quarters, this Committee was disbanded in 2002. However, the Minister noted that the system currently managed by the Department of National Civic Registration (DNCR) could be upgraded to meet new requirements such as interfacing with other Government agencies and upgrading to a smart card status by inserting a chip on the current card. The organisation handling the current national ID card project, SAGEM SA were also said to be experienced in smart card technologies and were implementing similar project in the United Arab Emirates.

The Technical Sub-Committee agreed that emphasis should be on identity management rather than card issuance to enable the Sub-Committee have a holistic approach to the development of an acceptable solution. The proposed solution, in order to achieve the goal of credible consumer credit system, must be able to uniquely authenticate the identity of all individuals. The solution must have the confidence of financial institutions as well as the confidence of individuals whose personal information must be protected at all times. Hence, the proposed system should be more than an ID card issuing agency. Basic information should be recorded on a secure central database. This database information should be linked to the users’ biometrics. The security and integrity of the system would depend more on the database and its use of biometrics technology than on the card itself, and a verification service, which provides a secure and convenient way to prove one’s identity.
A number of privacy issues were raised and it was decided that;

1. The database must be secure;
2. Information on cards must be secure;
3. There must be tough criminal penalties for anyone found abusing the system; and,
4. Strict limits must apply on who can access information on cards/database.

The solution would comprise of a three-tier system:

1. Super Structure;
2. Legacy systems (existing ID card issuing agencies); and,
3. Card Acceptance Devices (CAD) for verifications, renewals and other transactional purposes.

3.1 The Concept of Super Structure

To guaranty the uniqueness of an individual's identity, the database from which the General Multipurpose Card (GMPC) is issued must be secure, distinct and independent of all existing databases. It must, by definition, be connected to existing databases in a secure mode. It therefore follows that a new Super Structure or upgrading of an existing agency must be undertaken to house this GMPC database. The GMPC database must, however, not interfere with the statutory functions, processes and procedures of the existing (legacy) systems.

The Super Structure must also house its own independent Automated Fingerprint Identification System (AFIS) subsystem with sufficient capacity to process fingerprint impressions from all the existing systems. It must also have Key Management, Security Access Management (SAM) Subsystems and a Messaging Subsystem to control and monitor digital traffic. Needless to say, the GMPC database server must have sufficient storage capacity to hold the estimated number of electronic files, which contain biodata
and biometrics, photographs and other information relating to individuals. The system must also be fully redundant.

The Super Structure must be connected to the existing systems by a secure network, which can be a closed Wide Area Network (WAN), Virtual Private Network (VPN), or Fibre Optics. There would also be connectivity between the Super Structure and the Cards Acceptance Devices (CAD) through Dial Up, Global System Mobile Communication (GSM), Radio Frequency (RF) or VPN.

It is also expected that the GMPC would have a unique numbering system to link individual ID card to all existing systems.

3.2 Harmonization of Various ID Card Projects. Is it possible?

The Technical Sub-Committee took an inventory of the existing ID card projects in Nigeria and reviewed their status. They averaged about 12 projects, with the database ranging from ten thousand (10,000) to fifty eight million (58,000,000). Many of them have biometrics parameters. Most of the cards issued are 2D Bar Code while a few are chip-based and 90% of the projects use Oracle RDBMS.

In reviewing ID cards projects worldwide, it was observed that:

(i) Most of the countries have or are in the process of migrating to chip cards;

(ii) The cards have more than one application including biometric (fingerprints) data.

The global trend, therefore, is a gradual move towards the implementation of Multi-Purpose Card technology.
It was observed by the Sub-Committee that different Government agencies issue documents or cards specific to their statutory responsibilities. Some are plastic cards, others laminated board or paper. In essence, citizens carry various document and cards whose authenticity is questionable. In another respect, the issuance of these multiple document (cards) has major financial implications for the Government. Hence, the need to migrate to a multipurpose card, just as is the case in many parts of the globe, in order to reduce cost and ensure connectivity between Government agencies.

The answer, therefore, to the Committee’s question as to whether the harmonisation of various ID cards in Nigeria is technically possible, is YES. Not only is the technology available, it has been implemented in a number of countries worldwide. It is therefore a tested, stable and mature technology.

3.3 General Multi-Purpose Card (GMPC) Technology

GMPC technology allows for the use of a chip (smart card) in which different public and private sectors applications (activities) can be loaded into one card. The essential key to a GMPC is the linkage to a secure database in which biometric verifications has been done on each person therein. Apart from the strong identification characteristic, which is common across the many applications on the GMPC, the technology allows, for example, the same card to be seen and used by Road Safety Agencies as drivers' license; by the Electoral Commission as a voter's card; by the Health Authorities as health card; by the banks as a secure and genuine ID card, e.t.c. The technology allows only the relevant agency to have access to the application and data of the GMPC relevant to its statutory responsibilities. It forbids one agency from having access to another's data. Fundamental principles of GMPC are identification, authentication, non-repudiation and portability. In summary, GMPC technology has a framework, which allows for the integration of many applications into one Multi-Purpose Card.
3.4 Card

The Sub-Committee emphasized the need for a chip-based card that has sufficient memory for various applications. The card should have a long life span (at least 10 years) and be made of composite material of Poly Vinyl Chloride (PVC) and Poly Carbonate (PC) plastics. Surface printing should be supported by the card material. A very important property of the proposed card is resistance to harsh environmental conditions. The card should withstand up to 70°C temperature for 30 minutes without card damage or loss in functionality and complies with 10 times the requirements on bending test.

The card's production should comply with International Standards Organisation (ISO) (7810, ISO 7816-1 & ISO 10373). The card should also be ultraviolet protected and resistant to X-rays.

Smart cards can generally be classified as follows:

- **Contact Cards**
  They have physical contact with the reader. The communication is through electrical pulses.

- **Contact-less Cards**
  They don't have physical contact with the reader. The communication is based on radio signals.

- **Combi Cards**
  This is a combination of both the contact and contact-less cards.

There are 2 basic card operating systems, which help in classifying cards:

- **Multi Card Operating System (MCOS)**
  - Proprietary and therefore much more secure

- **JavaCard Operating System**
  - Open Standard and less secure
Committee on Harmonisation of National ID Cards

Figure 3.4: Sample Card design showing some proposed security features

3.5 Chip

The Sub-Committee proposed a chip based technology for the purpose of unifying all ID cards in the country. The chip should include memory, an operating system and a processor. The chip should be at least 64K Crypto chip made from the latest and proven silicon platform. RAM should be at least 3.0 kb. FLASH and EEPROM should be at least 64kb. The chip should be a crypto-coprocessor, Hardware RSA, and supports all other crypto systems (DES, DSA etc).

The chip’s production should comply with ISO 7816 standards for integrated circuit cards with contacts. The chip should also support dynamic load/delete capability.

The microchip must be secure. The following security features must be implemented on the chip:
Committee on Harmonisation of National ID Cards

- Digital Encryption Standard (DES), Triple DES [All Secret-key cryptosystems]
- Digital Signature Algorithm (DSA), NIST FIPS 186
- Rivest, Shamir & Adleman (RSA) 1024 [Public-key cryptosystems]
- Message Digest algorithm, MD5
- Secure Hash Algorithm, SHA-1 [Public-key cryptosystems]
- X.509 certificates [ITU recommended digital certificate]
- Password-Based Encryption Standard PCKS #5 v1.5
- Public-Key Cryptographic Standards [set of standards for Public-key cryptosystems]
- On-Card key generation

3.6 **Suggested Data Fields on the Proposed Card and Their Estimated Sizes**

Suggested compulsory data fields and their estimated sizes (Appendix B)

- Name (30 Bytes X 3)
- Date of birth (10 Bytes)
- Residential address (40 Bytes X 4)
- Photograph (64 KBytes)
- Date of issue (10 Bytes)
- Date of expiry (10 Bytes)
- Biometrics (256 KBytes)
- National ID number (15 Bytes)
- INEC VIN (15 Bytes)
- Federal Inland Revenue Service (FIRS) TIN (15 Bytes)
- National Health Insurance Scheme (NHIS) ID Card (15 Bytes)
- Pension Commission (PenCom) ID Card (15 Bytes)

Total Size of each record = 400KB
3.7 **Suggested Classification of Cards**

There will be 2 categories of the multipurpose ID card; citizen and residency card for non citizens.

1) Citizens card (2 types)
   - Basic Card (Given Free)
     - Biodata, Biometrics, National ID, Voters Register
   - Premium Card (Paid for)
     - Same as Basic plus all other applications, e.g. Drivers' Licence, NHIS, PenCom, etc.

2) Residency Card
   - Same as Premium card but issued to non citizens.

3.8 **Phased Implementation of the Solution**

The proposed GMPC system would be multi-tiered, consisting of 3 levels:

- The Super Structure
- Legacy Systems (Existing Systems)
- Card Acceptance Devices (CAD)
4.0 The Super Structure

The Super Structure will serve as the backbone (back office) and the central hub of the GMPC system. Some of the names suggested for the Super Structure include; National Digital Infrastructure and National Identity Management Commission. The Super Structure will have direct communications channels with most of the components that make up the GMPC system (as depicted in Figures 3.8.1 & 3.8.2). It will also source for data from existing systems and carry out validation of the data.

The central hub will have its own independent AFIS but can provide fingerprint impression for other existing systems. Other functions of the Super Structure include access-control of the whole GMPC project, setting standards (interface, business rules etc) and controlling workflow. It will also control issuance/post issuance card applications. The Super Structure will also be in-charge of enrollment, card SAM Generation and production management functions.
In order to meet the stated functions, the Super Structure must satisfy the following features:

- Hardware Redundancy: There should be back-up in case of hardware failure.
- System Availability: The system must be available 99.99% of the time.
- Unix operating system should be used for reliability and security.
- RAID technology disk array
  - Access time
- Oracle
  - Data integrity & ability to store, read, etc
- Security (Internal & External)
- High speed WAN network (Closed-network)

The servers, Unix and Oracle databases will be housed at a suitably designated central site.

The specification for servers is as follows:

- 24” system frame + expansion cabinet
- Processor: 64-bit POWER5™
- Quad Processors
- Clock rates (Min/Max): 1.65GHz / 1.9GHZ
- Micro Partitioning and Power-on-Demand
- System memory (Std/Max): 8GB / 512GB
- Hard Disk storage (Min): 28 TB
- Unix Operating System
- High availability Subsytems
Figure 3.8.2: Systematic Layout of the Central Hub

Components of the Central Hub

4.1 Service Centres (SC)

The SC will serve as the front-office functions of the Super Structure. The SC will have its own compliments of equipment (see Figure 3.8.1 & Figure 4.1). The SC’s server will be linked to the Super Structure.

The following activities can be undertaken at the SC

i) enrolment of fresh applications for GMPC
ii) issuance of GMPC
iii) upload of various applications
iv) payment associated with the GMPC
v) re-issue of GMPC (lost cards)
vi) other e-government applications.

4.2 Legacy Systems

The Legacy Systems are all the existing databases that are hosted by the relevant Government agencies. The legacy systems will be responsible for capturing of all details i.e. bio-data, biometrics, photographs and other details specific to the agencies' statutory responsibilities. They will in turn communicate with the Super Structure, the approval to issue the relevant application on to the GMPC. The legacy systems will interact with the Super Structure for inquiries and update functions in respect of GMPC holders.

4.3 Card Acceptance Devices (CAD)

CAD includes hand-held devices, mobile or stationary devices such as ATM, digital kiosk, fingerprint scanners etc. The GMPC should accept data from both mobile and stationary CAD as depicted in figure 2.4.5.
Below are some of the features of CAD:

- Secure, robust handheld terminal for mobile applications: Driving Licence, ID Card, Voters Card etc
- Main built-in features:
  - Smartcard and SAM slots
  - Fingerprint biometric scanner
  - Secure memory
  - Programmed keypad
- Wireless options for mobile applications:
  - GSM/GPRS
  - IEEE 802.11b WiFi
- Optimized for indoors and outdoors
- Serial and USB interfaces
- Includes PC/SC support

While the mobile and stationary CAD will be located all over the country, the Super Structure must register each one within its database and establish communication channels with them for upload of data from them and download of updates to them.

4.4 Connectivity

Both the legacy systems and CAD must be connected to the Super Structure in a reliable and secure manner.

Super Structure Connectivity

The Super Structure can connect to any of the legacy systems using Closed WAN VPN, Dial Up or Fibre Optics.
**Super Structure - CAD Connectivity**

The Super Structure can connect to any of the CADs (both mobile and stationary) using Dial Up, GSM, RF or VPN.

**Super Structure - e-Purse/Bank Connectivity**

Connecting the Super Structure with financial institutions through an established switching organisation for both acquisitions and settlements functions.

### 4.5 Automated Fingerprint Identification System (AFIS)

Different agencies maintain disparate AFIS standard for compressing and storing fingerprint images. There is need to harmonize standards among all the players.

Since the requirement of every legacy system is unique, each should store its fingerprint in its own AFIS sub-system based on the world standard (WSQ FBI standard for compressed raw images). This approach will facilitate the exchange of fingerprint images with other AFIS from the different legacy system within the country.

The Super Structure will house its own central AFIS system, which will have the validated fingerprints and processed images of individual.

### 4.6 GMPC Applications

A worldwide review of GMPC projects shows the following applications have been successfully implemented:

(i) National Identity

(ii) Immigration / Borders Control

(iii) Drivers’ licence

(iv) Medical
(v) Social benefits
(vi) Electoral system
(vii) Health application
(viii) Tax Administration
(ix) e-Government and Financial services
(x) Travel cards insurance

A review of the possible applications that could be integrated into the proposed GMPC in Nigeria:
(i) Voters’ cards
(ii) National ID card
(iii) Drivers’ licence
(iv) Banking verifications
(v) Health insurance
(vi) Pension scheme
(vii) Tax
(viii) e-Purse
(ix) Land Title
(x) University Students’ Cards

For practical purposes, implementation constraints, and the worldwide technology best practice, a phased implementation of these applications is usually the best approach. During the meeting of the Technical Sub Committee, opinion was expressed that some of these applications should continue to stand alone as separate card. FRSC made a case for its drivers’ licence.
5.0 Where to house the Super Structure

There are two schools of thought: one is the establishment of a new independent agency; and the second is housing the super-structure within an existing agency. The following are relevant factors to be considered and the discussion on this issue:

- **Technical adequacy of the existing platform**

  A review of the existing platform indicates that only DNCR might be capable of performing the functions of the Super Structure after a comprehensive overhaul/upgrade of its system. However, from the software point of view, the suite of application software required for the GMPC is completely different from those currently in use in all ID projects.

- **Legal issues**

  In respect of legal issues, using the existing platform would mean a duplication of its statutory responsibilities on one hand. On the other hand and most significantly, the subjugation of the statutory functions of the various agencies under one agency. Similarly, the establishment of a new independent agency would require a new legal framework.

- **Human Resource Issue**

  To man and run the proposed Super Structure, different set of skills are required. Therefore, intensive training on GMPC technology is required as it is different from the technologies used by existing ID systems.

- **Political Antecedent**

  It is important to be mindful of the antecedents of the existing agencies. As much as possible, the new super agency must not be burdened with the political undercurrent that trailed the establishment of the existing agencies.
Committee on Harmonisation of National ID Cards

- **Populating the new Super Structure database**

  This issue is both of technical nature and implementation strategy. The fundamental principle dictates that a thorough shakedown, sieving and revalidating each record across the existing databases must be carried out, using biometric parameters.
1.0 INTRODUCTION

1.1 The Legal Sub-Committee of the National Committee on Harmonization of National Identity Card was set up to amongst others, review legal, privacy and civil liberties issues related to this initiative.

1.2 The Sub-Committee was composed of the following:

(a) Mr. Ehindero (Inspector General of Police) Chairman
(b) Mr. Aba Ejembi (Civil Liberties Organization) Member
(c) Mr. Ike Udunni (Federal Ministry of Justice) Member
(d) Mr. John Ugolo (National Pension Commission) Member
(e) Mr. Asue Ighodalo (Banwo & Ighodalo) Member
(f) Mr. Yusuf Wodi (Legal Services, Federal Capital Development Authority) Member

Secretariat:

(a) Mr. Columbus Okaro (DCP, Legal, IGP’s Office)
(b) Mr. Jonathan Towuru (CSP, IGP’s Office)

1.3 The Sub-Committee held its meetings on 21st and 28th September, 2005 and formulated a programme of action which involves the review of the relevant laws and regulations as they affect the assignment of the main Committee.
2.0 CONSIDERATION OF LEGAL ISSUES

2.1. The programme of action of the Sub-Committee involved in-depth review and analysis of the following existing laws as they affect the assignment of the National Committee:

(a) Chapter IV of the Constitution of the Federal Republic of Nigeria 1999 on the protection of fundamental human rights including right to privacy. Section 45 of the same Constitution which also provides exceptions to fundamental human rights contained in the Constitution.

(b) The following Acts:

   i. National Civic Registration Act;
   ii. Passport Act;
   iii. Immigration Act;
   iv. National Population Act;
   v. The National Health Insurance Scheme Act;
   vi. Birth & Death (Compulsory Registration) Act; and

2.2 During a preliminary review of the 1999 Constitution and the above listed laws, the Legal Sub-Committee was of the view that, in addition to the information already contained in Second Schedule to the Nigeria Civic Registration Act, the following information or data, can be safely included in the National Identity Card without infringing on the fundamental human rights including right to privacy of the citizens:

   i. Blood group;
   ii. Genotype;
   iii. Colour of eyes;
   iv. Distinctive facial features;
   v. Electronic signature; and,
   vi. Physical handicap, if any.
2.3 The Legal Sub-Committee noted the need to include biometrics to enhance the security features of the National Identity card.

2.4 Though, it is hoped that the National Identity Card may be upgraded to have features such as the smart card, it is necessary to state that financial transactions are private and the Sub-Committee is of the opinion that information on the credit status of an individual should not be in the public domain. Access to such information must be specifically allowed by the owner of the information. Besides, the credit status of an individual changes from time to time. It may therefore be impracticable to update such information in the ID Card.

2.5 The integrity of the information that is to be inputted into the ID Card must be protected from alteration, hacking, etc. Therefore, in addition to legal protection which is highly recommended, there would also be need to protect access to such information with appropriate technology. In this regard, the attention is hereby drawn to the Cybercrime Bill presently before the National Assembly, which would regulate access to use of information using computer and would protect National Critical Information Infrastructures such as the National ID Card databank. It would be necessary to use legal instruments to curb unauthorized access to the information to be stored in the National ID Card database.

2.6 The Legal Sub-Committee commends the initiative of Federal Government for this project as it will greatly enhance identification of Nigerian citizens, data retention and management.

2.7 The Legal Sub-Committee in its continued sitting and deliberations examined the minutes of the meeting of the Committee on Harmonization of National Identity Card held on 29th September, 2005 at the FCT Minister’s Conference room Garki - Abuja.
2.8 **FURTHER CONSIDERATION OF LEGAL ISSUES:**

The Legal Sub-Committee reviewed both the Electoral Act 2003 and the Federal Road Safety Act. The Sub-Committee observed that both Acts provide the basis for information for the issuance of voters' card and drivers' licence. The information required for both voters card and drivers' license are information similar to the information contained in the National Civic Registration Act.

2.9 The nature of financial information and the credit status of the individual to be incorporated into the National Identity Card were of concern to the Sub-Committee. Financial information that may be incorporated include bank account number and source of income for the purpose of disclosure of the credit status of the individual. However, these two sets of information are not universal as some people are unemployed, while others do not operate bank account. Moreover, there are people with several bank accounts and as such it may be difficult to capture more than one account number in the ID Card. Besides, these two sets of information are subject to changes from time to time in contrast to other information such as genotype, colour of eyes that do not change over time.

3.0 As reiterated earlier, access to information in the National ID Card should be restricted. The Legal Sub-Committee was of the view that all Nigeria Security Agencies should be able to access all the information in the National Identity Card for purpose of identification. Respective government agencies should access information relevant to their mandate.

3.1 The ownership of the databank should reside in government and should be treated as National critical information infrastructure that must be protected by law and technology. Access by individuals, private organizations and Diplomatic Missions should be specifically granted by relevant government agencies, all of these expectedly, need to be provided for in a law.
3.2 In view of the fact that the type of data to be shared, the agencies to share such data and the sharing formula have been not determined; the details of the legal relationship between such agencies cannot be defined now.

3.3 The Legal Sub-Committee noted the existence of the Department of National Civic Registration (DNCR). If the policy thrust is for the existing agency-DNCR to incorporate all the additional information from other sources already identified, into the National Identity Card, then the enabling law of the DNCR is to be amended to include such arrangement. However, if a new agency is to be established to take over the implementation of the Harmonized National Identity Card, a bill should be drafted to repeal the enabling law of the DNCR, which will also transfer the functions of DNCR to the new agency and provide the requisite structure for the new agency.

3.4 We have noted the observation of the main Committee about the inclusion of certain data, especially financial information, which are considered private in the National ID Card of some jurisdiction. It is our submission that the basis upon which certain data may be permissible must be our legal order particularly the grundnorm, i.e. Constitution. Our constitutional order does not permit the invasion of the spheres classified as private and therefore no body can be compelled by any law including an Act of the National Assembly to indulge information that are regarded as private. The financial information suggested by the main Committee to be included in the National Identity Card can only be given by the consent of the individual to other individuals by judicial authority. We therefore, are of the opinion that it is unsafe to put information about the credit status of the individual in the public domain.

3.5 In our analysis of comparative experience of other countries e.g. the United Kingdom (UK) and Japan, we discovered that the issue of the invasion of Rights to privacy has been a
critical factor in the introduction of a National Identity Card. It was first introduced during the 1st World War in 1914 but was later abandoned in 1919. It was re-introduced during the Second World War under the National Registration Act 1939 but was later abandoned seven years later. Also judicial authorities in the United Kingdom as far back as 1951 in the case of Wilcox vs. Muckle condemned the use of National Identity Card as in infringement of citizens Rights. Until date, the identity card Bill is still in the British parliament and yet to be passed into law due to criticisms and apposition grounded on the critical issue of Right to privacy. This is in spite of the fact that under the United Kingdom identity card Bill, the proposal is to first introduce the identity card on a voluntary basis and in later dates it would be made compulsory.

3.6 Also in Japan where such scheme has been launched without having privacy protection enacted; on the day of the launch, six municipal governments disconnected from the system while some turned off the system even before the day of testing. Some municipal Governments decided to respect their individual resident's decision to opt-out. The city of Yokohama asked the manager of prefectural server to erase the Yokohama's resident data previous sent.
PART 3 IMPLEMENTATION SUB-COMMITTEE

1.0 Introduction:
The Implementation Sub-Committee was mandated to review all operational, financial and managerial issues. It was also required to propose timeline and programme for the implementation of the recommendation of the Main Committee to Government.

MEMBERSHIP OF THE IMPLEMENTATION SUB-COMMITTEE

1. MD United Bank for Africa – Tony Elumelu Chairman
2. MD Zenith International Bank – Jim Ovia Member
3. DG, National Pension Commission - Muhammad K. Ahmad Member
4. Director-General, Budget Office of the Federation Member
5. Executive Secretary, National Health Insurance Scheme Member
6. Representative of National Population Commission Member
7. Representative of SAGEM SA Member
8. MD, IRIS Smart Tech Nig. Ltd - O. Fisher Member
9. MD, Chams Nigeria Ltd. - Demola Aladekomo Member

At its meeting on 27th September 2005, the Sub-Committee identified the following key issues to guide its work:

(i) Operations issues;
(ii) Contractual issues;
(iii) Funding issues;
(iv) Effective organization and implementation; and
(v) Timeline required to implement this new initiative.
1.1 Objectives of The ID Card Harmonisation Scheme

The general objectives of the ID Card harmonisation initiative can best be summarized as:

(i) Establish a National Database using fingerprint biometric to uniquely and unambiguously identify:
   (a) Nigerian citizens
   (b) Non-citizens

(ii) To provide a unique identification number for each of the above persons and tie this unique identification number with the identification numbers in other existing related ID databases.

(iii) To issue a GMPC:
   (a) citizens
   (b) non-citizens

(iv) To manage and update the National Database and the whole GMPC operations; and

(v) Provide a platform for other e-government services.

1.2 Methodology

In order to achieve the stated objectives, the strategic direction should be to:

(a) Establish a Super Structure to house the National Database;
(b) Connect the Super Structure to the existing ID related databases;
(c) Connect the Super Structure to other end-users, CAD, Banks, Government Service Centres, etc; and

(d) Utilize a Public Private Partnership concept.

2.0 Global Best Practices

In an initiative of this nature, it is pertinent to analyze how other countries addressed similar challenges and conduct an extensive review of similar projects worldwide. The Technical Sub-Committee reviewed both the ID projects in Nigeria and others worldwide, taking cognizance of this review; the Implementation Sub-Committee synthesized the following global best practices:

2.1 Unique Identification Numbering

Each citizen or resident is issued a unique Identification number that is used throughout the lifetime of the citizen.

With regard to Nigeria, Federal Road Safety Commission (FRSC), Department of National Civic Registration (DNCR), National Health Insurance Scheme (NHIS), Independent National Electoral Commission (INEC), National Pension Commission (Pencom) and other ID related agencies all have their separate ID numbers that are used to identify individuals in their respective databases. The validity of these databases is questionable and it is a fact that they contained duplicate entries. It is therefore imperative that the new Unique Identification Number of an individual is given only after fingerprint verification and is tied to the different identification numbers issued by the other agencies. It therefore provides for the unique and unambiguous identification of an individual across various databases.
2.2 General Multipurpose Card (GMPC)

While individuals may invariably carry more than one card for different identification purposes, global best practice and the evolution of chip card technology and multi purpose card application have given rise to countries issuing GMPC, where several applications reside in one card. GMPC makes for water-tight security and significant cost savings to government with regard to capital outlay for the procurement of cards, printing equipment and consumables.

2.3 Public Private Partnership (PPP) Concept

The concept of PPP has become a universal practice in many areas of development and provision of social and economic services. There are always competing interests for limited government funds. A PPP model also enables government to avoid permanent financing liabilities. More importantly, it has been noted that private sector participation in ICT initiatives makes for a more efficient and effective running of projects. The Implementation Sub-Committee has reviewed the financing viability of this initiative vis-a-vis the PPP concept and therefore suggests the adoption of PPP model. The proposed PPP model is shown in the Table below.
3.0 Funding / Business Model

A review of Capital outlay and Recurrent Expenditure budgets by different agencies in the production, issuance and maintenance of different ID cards suggest that a more cost effective methodology would be to collapse these different applications into a GMPC. This also supports the government reform programme, service delivery and e-government initiative. It has also been established that in Information and Communication Technology related projects, the private sector is better equipped, more efficient and has the required level of technical competence to manage such initiative. If the Business Model along the PPP concept can be superimposed on such an initiative, it is therefore an appropriate strategic direction. This GMPC initiative is therefore considered one that can utilize the PPP concept with funding coming from the solution provider and the government.
3.1 Income Stream and Revenue Sharing

The table below identifies the various financial components in order to examine the viability of this initiative along the PPP concept.

<table>
<thead>
<tr>
<th>Application</th>
<th>Revenue (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drivers Licence (2m Cards annually)</td>
<td>N2.0b</td>
</tr>
<tr>
<td>Bank ID Card Verification (30 Banks 200 branches)</td>
<td>N200m</td>
</tr>
<tr>
<td>Residence Permit</td>
<td></td>
</tr>
<tr>
<td>Tax/Tax Clearance</td>
<td>N100m</td>
</tr>
</tbody>
</table>

4.0 Operating Model

As advised by the Technical Sub-Committee, the operating model of this initiative should be in three levels:

(i) Super Structure.

(ii) Existing databases / agencies.

(iii) Card Acceptance Devices (CAD).

4.1 Regulatory Issues

The Implementation Sub-Committee considered the following regulatory issues:

4.2 New Agency to house National Database

The Implementation Sub-Committee suggests the establishment of a new agency to house the new National Database. It is also important to decide whether or not to transform one
of the existing agencies into the new agency. This new agency will therefore become the backbone of this initiative and its functions will include:

(i) Establish a new National Database that will uniquely and unambiguously identify individuals by utilizing fingerprint biometric verification technology. The database should be divided into:

(a) citizens.
(b) non-citizens.

(ii) Provide a Unique National Identification Number (UNIN) to each individual so verified and authenticated. This UNIN should be tied to the identification numbers of same individual in other existing ID related data bases / agencies

(iii) Issue GMPC to each

(a) citizens.
(b) non-citizens.

(iv) Implement in phases the various applications to be incorporated into the GMPC.

(v) Implement the following applications in the first:

(i) National ID Card.
(ii) Driving Licence.
(iii) Voters Card.
(iv) Pension.
(v) National Health Insurance.

(vi) Manage and update the database and the whole GMPC operations.
(vii) Establish and maintain secure communication links with all other existing relevant ID related agencies and databases.

(viii) Maintain secure communication links with end-users in other public and private agencies, CAD, Government Service Centres (GSC), e.t.c.

(ix) Set standards and technical specifications for the telecommunication link between organizations and for devices utilized as contained in (v) and (vi);

(x) Respond to verification enquiries regarding the identification of individuals.

(xi) Provide platform for other e-government services; and,

(xii) Incorporate any other related activities that would further enhance the above objectives;

4.3 Government / Citizens Service Centre (GSC / CSC)

The Implementation Sub-Committee recommends the establishment of these centres that will serve as outlets through which citizens and residents can access services provided by the GMPC initiative. These centres will ensure efficient service delivery in accordance with the government's reform programme. In order to reduce establishment cost and for fast track implementation in the short term, it is suggested that the new Electronic Passport Issuing Centres of Nigeria Immigration Service (NIS) can incorporate counters and kiosks for GMPC services. It is also suggested that banks that are authorized to collect different revenue streams for government agencies should set up these service centres, either within their banking halls or in distinct facility. The GSC can be franchised under a PPP concept where the viability of such arrangement may be linked to some commission on transactions conducted at these franchised GSC.
4.4 Enabling Law

The establishment of new agency/commission will require a new legislation/bill, which has already been drafted by the Committee. Equally important is the amendment of the existing Decrees/Laws/Acts establishing existing agencies baring them from issuing ID cards.

4.5 Corporate Governance

The Implementation Sub-Committee reviewed several corporate governance issues in respect of this initiative. They are:

(i) Name of the new agency

The name of the new agency should be one that adequately reflects the overall objectives of this initiative. The following suggestions have been made:

(a) National Digital Infrastructure
(b) National Identity Management Commission

(ii) Status of the new agency

The new agency must be autonomous, self-accounting and should report directly to the Presidency.

(iii) Governing Board

It is suggested that the governing board be the apex management body of the new agency for maximum efficiency and independence. It is recommended that the following agencies should have representations in the Governing Board:

(a) the Independent National Electoral Commission;
(b) the National Health Insurance Scheme;
(c) the Federal Road Safety Commission;
(d) the Federal Inland Revenue Service;
(e) the National Pension Commission;
(f) the Nigeria Police Force;
(g) the Nigeria Immigration Service;
(h) the Office of the National Security Adviser;
(i) the National Population Commission and
(j) the Central Bank of Nigeria

(iv) **Ownership of Database**

The new National Database is an asset of the government and therefore belongs to the Federal Government of Nigeria. Therefore, the solution provider does not have any direct or implied interest in the database. The provider or the agency must not use information or data therein for any commercial purposes other than those stipulated by the Enabling Law.

(v) **Access to data**

Access to data or information contained in the new National Database must be authorized and strictly controlled. On no account must it be used or made public. Only authorized agencies can have access to it. Enquiries from private and public agencies or companies regarding identification and verification of individuals can be made in accordance with rules and regulations issues by the Agency.

(vi) **Sanctions for Non-compliance**

It is envisaged that there may be possible resistance to collaboration/co-operation between the new agency and the existing government agencies. It is therefore suggested that the appropriate sanctions must be prescribed for non-compliance by the other agencies within the Enabling Law establishing the new agency. This would include but not be limited to providing information and data held by them in
the prescribed format as required for GMPC, within the agreed timeframe, maintaining connectivity, etc.

(vii) **Mandatory use of GMPC Number in Transactions**

In order to address the challenge of identification, both in terms of verifying an individual and associating the individual with transactions within both the public and private sector, the Implementation Sub-Committee suggests that government should enact a law that makes it mandatory for the use of the Unique Identification Number system for a number transactions. These transactions include but not limited to:

(i) Opening and maintenance of bank accounts;
(ii) Purchase of insurance policies;
(iii) Purchase / transfer / registration of land and landed properties;
(iv) registration for retirement benefits scheme;
(v) Health insurance scheme;
(vi) Social security;
(viii) Consumer credit;
(ix) e-government services; and
(x) Any other transactions as government may deem fit.

5.0 **National Implementation Issues**

The Sub-Committee recommends that a National Implementation Committee (NIC) be set up by the government to implement this initiative. The membership of the NIC should consist of:

- Chairman of the Main Committee
- 3 Subcommittee Chairmen
- DG NITDA
The Sub-Committee also suggests that the responsibilities of the NIC should be:

(i) Public awareness/sensitization campaign;
(ii) Ensure passage of draft bill into law;
(iii) Co-ordinate inter-departmental workshops and related issues in the establishment of the framework for this initiative;
(iv) Approve technical specifications for the initiative;
(v) Monitor the implementation and national roll-out;
(vi) Co-op any ad hoc resources to facilitate its work; and
(vii) Monitor the devolution of its work into the establishment of the new corporation.

6.0 Implementation Timeline

The proposed commencement period is April 2006 to June 2007. Please see Annex I for details.
PART 4 RECOMMENDATIONS

TECHNICAL SUB-COMMITTEE:

It is recommended that:

1.1 Government should create a new National Identity Database, which will serve as a central source of identity verification. It will be connected to the existing databases that are relevant to the identification of citizens and residents.

1.2 This new national database should use fingerprint biometrics to uniquely and unambiguously identify each individual across the existing databases and thereafter issue a unique identification number to each verified individual, which would be common across the other databases.

1.3 This new database should be housed in a Super Structure;

1.4 Government should name this new Super Structure. Some suggestions include:

(i) National Digital Infrastructure.
(ii) National Identity Management Commission.

1.5 Government approves that the creation of a Super Structure network, consisting of three levels:

(i) The Super Structure;
(ii) All the existing and future specialized databases; and
(iii) Card Acceptance Devices some of which would be housed in the proposed Service Center.
1.6 Government should authorize the Super Structure to specify the types of connectivity between it and the two other levels in the network, whether Closed WAN, VPN, Dial Up, Fibre Optics, RF, GSM, the major characteristics being reliability and security.

1.7 The Super Structure would have its own network of Servers that will have the following features:

(i) High hardware Redundancy and System availability;
(ii) RAID Disk Array technology;
(iii) UNIX Operating System;
(iv) Oracle Relational Data Base Management System;
(v) Its own independent Automated Fingerprints Identification System (AFIS);
(vi) Key Management System; and
(vii) Security Access Management System.

1.8 The following existing databases should be the first to be linked to the Super Structure:

(i) INEC
(ii) DNCR
(iii) NHIS
(iv) FRSC
(v) PenCom
(vi) FIRS

Other databases that have identification requirements should also be linked in future e.g.

(i) Social Security
(ii) Consumer Credit Bureau
1.9 The Card Acceptance Devices should be linked to the Super Structure. These devices include but not limited to:

(i) Fingerprints Scanners to be used for one-on-one verifications, especially at Banking halls, etc;

(ii) Handheld Devices to be used on the field by the Road Safety Corps, Police or other Law Enforcement Agencies authorized to verify identities of individuals;

(iii) Automated Teller Machines;

(iv) “Service Centers” that will:
   (1) Renew and endorse cards e.t.c.;
   (2) Be outlet for interface with Super Structure; and
   (3) Be outlet for other e-government applications.

(v) Any other as stipulated and authorized by the Super Structure.

1.10 Government should adopt Multi-Purpose Card technology.

1.11 The following applications should be implemented on the proposed GMPC:

(i) National Identity Card

(ii) Bank verifications

(iii) Voters' Card

(iv) Drivers' license

(v) National Health Insurance

(vi) Pension scheme

(vii) Tax Card

(viii) University Students’ Card

(ix) Land titles

(x) E-Purse
(xi) Any other e-government applications that may be used in future;

1.12 The implementation of the applications listed in recommendation 6.11 should be phased.

1.13 Government should adopt the use of a chip-based Identity card. This chip card should be made of composite material of Poly Vinyl Chloride (PVC) and Poly Carbonate (PC);
   It should also:
   (i) Support surface printing;
   (ii) Be resistant to harsh environmental conditions;
   (iii) Be ultra violet protected and resistant to X-rays; and
   (iv) Comply with ISO standards;

1.14 The card operating system should be Multi-Card Operating System (MCOS) that provides more security.

1.15 The card design should incorporate security features such as Hologram, micro-lettering, guilloche patterns, e.t.c.

1.16 The chip should be at least 64Kb crypto, consisting of at least 3.0Kb RAM, Flash and EPROM characteristics. The chip should have the following security features:

   (i) Digital Encryption Standard (DES), Triple DES [All Secret-key cryptosystems];
   (ii) Digital Signature Algorithm (DSA), NIST FIPS 186;
   (iii) Rivest, Shamir & Adleman (RSA) 1024 [Public-key cryptosystems];
   (iv) Message Digest algorithm, MD5;
   (v) Secure Hash Algorithm, SHA-1 [Public-key cryptosystems];
   (vi) X.509 Certificates [ITU recommended digital certificate];
(vii) Password-Based Encryption Standard PCKS 5 v1.5;
(viii) Public-Key Cryptographic Standards [set of standards for Public-key cryptosystems]; and
(ix) On-Card Key Generation.

1.17 The card must have the following mandatory field:
Surname
First Name
Middle Name or Initials
Date of Birth
Sex
Photograph
Date of Issue
Biometric fingerprints
National ID Card Number

1.18 The card must also have fields for
INEC VIN
NHIS ID number
FIRS TIN
FRSC Drivers' license number
PenCom PIN
and other applications that government may choose in future.

1.19 The Government should have the following classification of cards:
(i) Citizens card: two types
   (a) basic card containing
       - biodata
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- biometrics
- ID number
- INEC VIN

(b) Premium card, it will contain same as Basic card, 
plus other applications as contained in 6.11

Resident card, to be issued to non-citizens, same as Premium card.

1.20 Government should conduct further detailed analysis for the formation of the Super
Structure either by a prospective solution provider or by a reputable international
consulting firm;
LEGAL SUB-COMMITTEE

2.1 A draft bill is attached for the establishment of a National Identity Management Commission for the GMPC.

2.2 The following information or data, can be safely included in the GMPC without infringing on the fundamental human rights including right to privacy of the citizens:
   vii. Blood group;
   viii. Genotype;
   ix. Colour of eyes;
   x. Distinctive facial features;
   xi. Electronic signature; and,
   xii. Physical handicap, if any.

2.3 The ownership of the databank should reside in Government and be treated as National critical information infrastructure, which must be protected by law and appropriate technology.

2.4 Access to the identity database should be restricted and only granted to relevant government agencies as provided by law.

2.5 The need to safeguard financial and personal transactions of individuals with appropriate legal and technological framework
IMPLEMENTATION SUB-COMMITTEE

The Implementation Sub-Committee wishes to recommend that:

3.1 Main Committee adopts the recommendation of the Technical Sub-Committee in respect of the project design, schematic layout, GMPC technology, card and chip specifications;

3.2 Government establishes a new agency / corporation to take over one of the existing agencies. In this regard, amendment of appropriate legislation establishing existing agencies would be necessary.

3.3 The functions of the new agency shall be to:

(i) Establish a new National Database that will uniquely and unambiguously identify individuals by utilizing fingerprint biometric verification technology. The database should be divided into:

   (a) citizens
   (b) non-citizens

(ii) Provide a Unique National Identification Number (UNIN) to each individual so verified and authenticated. This UNIN should be tied to the identification numbers of same individual in other existing ID related data bases / agencies

(iii) Issue a GMPC to each:

   (a) citizens.
   (b) non-citizens.

(iv) Phased implementation of various applications to be incorporated into the GMPC:
(v) The following applications should be the first:

(i) National ID Card  
(ii) Driving Licence  
(iii) Voters Card  
(iv) Registration for retirement benefits scheme  
(v) National Health Insurance  
(vi) Tax / Tax Clearance  

(vi) Manage and update the database and the whole GMPC operations  

(vii) Establish and maintain secure communication links with all other existing relevant ID related agencies and databases.  

(viii) Maintain secure communication links with end-users in other public and private agencies and body, CAD, Government Service Centres (GSC), etc  

(ix) Set standards and technical specifications for the telecom link between organizations and for devices utilized as contained in (v) and (vi);  

(x) Respond to verification enquiries regarding the identification of individuals.  

(xi) Provide platform for other e-government services; and  

(xii) Incorporate any other related activities that would further enhance the above objectives.  

3.4 The status of the agency should be one that reports directly to the Presidency  

3.5 The agency should have a board. The board’s composition should include representatives of the following:
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(a) the Independent National Electoral Commission;
(b) the National Health Insurance Scheme;
(c) the Federal Road Safety Commission;
(d) the Federal Inland Revenue Service;
(e) the National Pension Commission;
(f) the Nigeria Police Force;
(g) the Nigeria Immigration Service;
(h) the Office of the National Security Adviser;
(i) the National Population Commission and
(j) the Central Bank of Nigeria.

3.6 The funding and business module to be used in the establishment and running of the new agency should be Private-Public Partnership (PPP) concept.

3.7 Government and the solution providers, within the PPP arrangement, draw up and agree on the income streams and revenue sharing formula with the solution provider;

3.8 Governments legislates the following regulatory issues:

(i) new National Database is a national asset and therefore ownership is that of the government;

(ii) access to the data contained therein must be authorized and controlled. On no account must it be divulged or made public. Enquiries must be solely for identification purposes by authorized and relevant agencies and private companies;

(iii) government provides sanctions for non-compliance by other relevant ID related agencies, which are not providing information and data held by them or maintaining connectivity;
3.9 Government legislates that UNIN must be mandatory in the following transactions:

(i) opening and maintenance of bank accounts
(ii) purchase of insurance policies
(iii) purchase / transfer / registration of land and landed properties
(iv) registration for retirement benefits scheme
(v) national health insurance
(vi) social security
(viii) consumer credit
(ix) e-government services
(x) any other transactions as government may deem fit.

3.10 Government should establish Government / Citizens Service Centres as interface platform between the public and the new corporation, in order for citizens to access services provided in respect of their GMPC;

3.11 That these Centres should be incorporated initially with the new Passport Issuing Centres of NIS in the short term. These centres should be franchised to banks collecting government revenues and other PPP arrangement;

3.12 Governments should establish a National Implementation Committee (NIC) to midwife this new initiative.

3.13 That the membership of the NIC should consist of:

(a) Chairman of the Main Committee;
(b) 3 Subcommittee Chairmen; and,
(c) DG NITDA

3.14 The responsibilities of the NIC should include:
(i) public awareness/sensitization campaign;
(ii) ensure passage of draft bill into law;
(iii) co-ordinate inter-departmental workshops and related issues in the establishment of
     the framework for this initiative;
(iv) approve technical specifications for the initiative;
(v) monitor the implementation and national roll-out;
(vi) co-opt any ad hoc resources to facilitate its work; and
(vii) monitor the devolution of its work into the establishment of the new corporation.
Attached below.
ANNEX I -
IMPLEMENTATION TIMELINE
ANNEX II -
PROPOSED BILL FOR AN ACT OF
NATIONAL ASSEMBLY
ANNEX III -
MINUTES OF MEETINGS