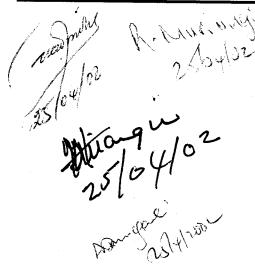# Belcom CT
L i m i t e d

ComputerSales•Consulting•Training•Networking

Proposal For OAU/IBAR PACE Database Management Information System

Presented To: OAU/IBAR – Data Management Unit (DMU)

Contact: Project-In-Charge

Dated: April 17, 2002

BELCOM CT

Consulting Services Division
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TABLE OF CONTENTS

1 Executive Summary

The incidence of poverty in Africa is not a new phenomenon. It has been there for as long as Africa itself has been there. But the people of Africa have forever used their land as the source of survival through cultivation and herding. The practice is now threatened by the increasing population, which particularly comes with it a reduction in the amount of land available for herding. An outbreak of disease for animals means that migration of the animals to un-infected grounds is no longer possible. This therefore implies that the animals would have to receive treatment or the already meager wealth will disappear in no time.

The delivery of veterinary services is critical to successful elimination of poverty in Africa. OAU/IBAR understands the critical nature of this problem and has therefore conceived the PACE programme which address animal health information collection, analysis, reporting and dissemination.

Indeed, the dissemination of information on disease patterns, the tracking of disease incidence and the elimination of poverty among livestock producers in Africa are all intertwined into one. For the achievement of the trio viz: disease elimination, tracking of incidence of disease and hence the initiation of elimination of the same, and the elimination of poverty or at least its alleviation can only be achieved if a centralized data collection, analysis, information generation and sharing is given a prominent role in the integrated effort.

The need to monitor the incidence of livestock disease patterns is critical and requires concerted reporting for effective preparedness and early warning. On-line dissemination of information especially at this time where the level of technological advancement has become a necessary tool in management and decision making, it is not only a necessary, but also an essential, vehicle for the achievement of the desired goal of the PACE database management information system.

As indicated in the ToR Belcom CT will seek to meet the desired project goals of:
- Assessing of data types for best structured database
- Evaluation of the proposed analytical tools
- Proposing the best operational platform
- Phased design of the operational database MIS
- Production of a working prototype
- Testing of operational prototype
- Incorporating comments gathered to produce the final version
- Translating of a French version for the country database MIS
- Preparing a complete operational system manual
- Provision Of Technical Support

It is our pledge that what we have proposed in this proposal shall be implemented, using our time tested local resources and experience that shall be our guide as we seek to achieve the desired goals.

2 Our Understanding Of The ToR & Assignment

The dissemination of information on disease patterns, the tracking of disease incidence and the elimination of poverty among livestock producers in Africa are all intertwined into one. For the achievement of the trio viz: disease elimination, tracking of incidence of disease and hence the initiation of elimination of the same, and the elimination of poverty or at least its alleviation can only be achieved if a centralized data collection, analysis, information generation and sharing is given a prominent role in the integrated effort.

Belcom CT sees its role as requested in the ToR as being that of:
- Assessing of data types for best structured database
- Evaluation of the proposed analytical tools
- Proposing the best operational platform
- Phased design of the operational database MIS
- Production of a working prototype
- Testing of operational prototype
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These headings are enumerated on page 9 of the ToR document. The testing of the operational prototype may seem not directly stipulated but is implied.
Our understanding of the role we are expected to play is indicated under each subtopic as highlighted above. We therefore indicate briefly what we see as our role under each task under the following subsections.

2.1 Assessment Of Data Types Of For Best Structured Database: The Conceptual Model

The conceptual database design for both the continental database and the country database provides the thinking of the design as envisaged by the DMU. It shall be necessary to share the conceptual thinking to ensure that the design of the 58 tables comprising 711 tables (pp 3 of ToR) provide a clear replica of the processes the database will in the end be expected to facilitate both data dissemination and report production, whether on-line or off-line. We shall undertake this within the first two weeks of the consulting assignment and provide the necessary conceptual design within the two weeks. The database schema shall be guided by what is currently in existence as per pp 3 of the ToR.

2.2 Evaluation Of The Proposed Analytical Tools

The most critical benefit that this system shall provide will be the information or disease pattern, intervention and analysis tools necessary for activity-oriented intervention. Involvement of some of the technical personnel who will require results from the system will form the necessary input at the design stage. It shall become necessary to evaluate the tools intended to provide the management guidance desired by the information consumers.

2.3   Proposal For The Best Operational Platform

The conceptual framework, which forms the basis for the final implementable system, coupled with the functionality of the final product will provide a pointer to:

- The operational operating system
- The underlying relational database to use
- The interface and logic design platforms.

We shall base our design on the complexity of transactional processing desired at various operational points. These shall be the information hubs at the country office and the need to cater for a unified operational platform given the variety of technological leaning in different African countries.

The level of network and data security at the local and on the wide area network shall also provide the desired direction on the choice of the operating system and the database solution.

2.4   Phased Design Of The Operational Database MIS

While the design of the conceptual database schema shall be undertaken from a top down approach, the implementation shall take a bottom up focus. This means that we shall ensure a working model of each module as shall be desired. We shall in particular implement the modules indicated under pp 3-4 in the order and manner that shall make more benefit for the desired reporting by DMU.

2.5   Production Of A Working Prototype

Using the same bottom up approach, we shall undertake the design of each and all of the modules that are desired for the complete model of the entire system. This shall provide a working prototype which when debugged and all issues collected shall form the desired PACE database management system.

2.6   Testing Of The Operational Prototype

Once completed, and although the model is always under test from the designers, it shall be put to rigorous testing with real data to ensure that it conforms to the desired concept. Concerns and comments on the design shall be collected for the final touches that will provide the desired system.

2.7   Incorporate Comments Gathered To Produce The Final Version

The comments collected as described above in 'testing of the operational prototype' shall be incorporated in the product as it is to produce the final version of the system.

2.8   Translation Of A French Version For The Country Database MIS

In compliance with the requirements of pp 4 of he ToR document, the interface of the working application shall be translated into French. Comments and concerns from the French users shall be incorporated into the translated version to facilitate final burn-in of the final system into a Version 1 of the PACE Database Management Information System.

2.9 Prepare A Complete Operational System Manual

A complete manual will accompany the system in the help format which shall be available on-line. It shall also be made available in pdf format and on print as shall be desired.

2.10 Provision Of Technical Support

The complete system shall be accorded our usual upgrade and support warranty for the first year of implementation. Annual support contracts shall govern future support arrangement between the designers and OAU/IBAR.

3 Belcom CT's Design Methodology

The consulting division of Belcom CT has been involved in the design and development of integrated applications utilizing web-based ActiveX Data Objects (ADO) technologies in its consulting initiative. The ability to link this technology to web-based databases and export formats that suit flat file systems will be a major benefit to the PACE project. We shall use the wealth of experience derived from the past projects but shall involve the management and staff at the DMU to enable us create a focused conceptual database management information system that integrates the requirements of stipulated in pp 3-4 of the ToR.

We shall use the time-tested approaches of fact finding through:
i.   Desk study
ii.   Internet and web driven research
iii.   Seminar/workshop information and consensus gathering
iv.   Personal interviews
v.   Report writing and documentation

3.1 Desk Study

The DMU has undertaken an extensive study ion its information systems requirements. They have an existing system and document or resource base, which will form the basis of the development of a database information systems design. A clear understanding of the documents that exists, their sources and where they are used is critical. A desk study, of the current documents, will give the system designers, and particularly the database designers the necessary information that will form the necessary insights to facilitate the formulation of a conceptual design of the desired database management information system.

3.2 Internet And Web Driven Research

Implementation of a future-focused management information system for the OAU/IBAR requires thorough researching on the technologies necessary to provide implementation of the right platforms. The Internet being the single resource that keeps changing by the second, it is necessary to undertake research that will give the entire design process an international and future focus and approach that this project deserves.

3.3 Personal Interviews

The most understood source of information is personal interviews. This should be conducted with internal management and staff independently with those concerned with information production and dissemination being the key sources of information otherwise called key-informants. We shall collect whatever information is critical to enable us have a clear

understanding of the genesis of the system design to facilitate meeting of the DMU's expectations. We shall use the interviews in conjunction with desk and process studies to enable the design team formulate the best database information system to meet the information requirements at OAU/IBAR.

3.4 Seminar/Workshop Information And Consensus Gathering

Once an understanding on the current position, the processes that require to be incorporated in the system design at the DMU and the current position of other players in matters on investment, we shall undertake a thorough review and vision creation programme which will formulate the conceptual design against which a prototype is to be designed.

3.5 Report Writing And Documentation

At every level of the design assignment, we shall continually develop the necessary report for team interaction and reporting and also as a basis of producing interim design report. Every stage of the assignment will be documented with the appropriate changes being agreed upon by responsible people to enable the whole project complete in time.

4 Why Belcom CT
4.1 A Consulting Background

Belcom CT is an all-in-one technology solutions business that spans hardware solutions delivery, network implementation and information systems consulting. The consulting business provides the human resource base to the other technology functions in the company.

4.2 Experience In Design & Implementation

We have experience in hardware specification, design and implementation. Our consultants have been involved in the design of systems that scale from small institutions to large institutions requiring large database systems design.

4.3 Experience In Document Handling Systems

Our consultants have also been involved in specifying and supporting network solutions for such organizations as the UNEP, Kenya Power and Lighting, Parliament, Ministry of Lands and Settlement, Ministry of Finance departments that now form the Kenya Revenue Authority and in the Department of Defense.

4.4 Training Experience

Belcom was essentially formed as a training company. We are among the very few Kenyan companies that address automation from a business orientation for development, community development, research and for large and small businesses. Our experience in training in both business and IT and in finance and investment related matters would immensely boost the national and international leaning that our training shall offer.

4.5 Our Desire To Place A Mark Of Success

Belcom is a learning organization. The experiences learnt over the years enable us to put our efforts to help our continental landscape achieve its desired goals, as part of our duty to facilitate efficiency and self-audit. We believe our involvement in this assignment shall be our duty and

an opportunity to give the best thus enabling us reach the highest level in research systems consulting.

5   Our Human Resource Base

Belcom relies as much as possible on internal human resources of its own directors or employees. Where a resource gap is identified, the company draws the resources from its network of associates. This project will benefit from the resources of the internal resources ad will draw any strategic dimensions from our associate, Dr. Theuri Njoka, Ph. D for all the inputs that we shall need on animal health and livestock development.

The founding directors of the company pursue a policy of joint ownership of the business with the employees which makes the company grow organically from the internal resources generated from the businesses consulting effort. This in turn ensures that the company enforces the policy of effectiveness in services delivery with each employee earning their way through the organization.

Our ability to combine technology, organizational development and microcredit also ensures that the business possesses an internal pool of human resources only matched by leading international consulting companies.

The team leaders in our organization comprises of the following:

Kiringai Kamau is the consulting assignment's team leader and the principal consultant. He is a BSc. (IT and Statistics) PgDip InfoTech from UoN, a business counselor, a European Union Business Assistance Scheme accredited business consultant, a trainer and community development worker. He has over 15 years of consulting experience in management information systems and over 5 years in strategic management in enterprise development with fund raising, credit appraisal, training and support. He has been involved in technology supported community development programmes. He is the lead GIS application solutions designer and developer.

Nguru Kabugi is a BSc (1st Class Hons Electrical and Electronics Engineering) from UoN, PgDip Info Tech. He has an experience of over 10 as a practitioner in information technology having worked as a lecturer at Kenya Institute of Mass Communication, an electrical engineer at Kenya Pipeline Corporation, and as a manager in charge of network and communications Brooke Bond Kenya Ltd, and now a director of Belcom and the communications consultant.

Musalia Kihamba holds a BSc. from UoN, is a renowned database expert with Oracle experience spanning over 12 years. He is the database expert within the group. His assignments range from developing small application solutions for Pharmaceutical Practice to Developing the PIN system in Kenya to the automation of Kenya Ports Authority to automating the Defense Staff College in Karen. He is responsible for all database solutions for the company. He integrates intelligence and database management to GIS solutions.

The following shall be team members in the implementation of the project:

Charles Kuria Kimani holds a BSc in electrical and electronics engineering from Moi University. He heads the software development team at Belcom, through his leadership the company has developed software for automating Microcredit programmes, Pharmaceutical practice, Business Accounting and Finance and cooperative management. He is a seasoned developer in Visual Basic, Java and a lead implementer of the ActiveX Data Objects (ADO) technology.

Patrick Kamau Mugo holds a BSc in Mathematics from the university of Nairobi. He heads the hospitality industry development team at Belcom. His major projects has been the development of the PowerHospitality, a suite of internet based software for the management of hotels, hospitals and schools using ActiveX Data Objects (ADO) technology through Visual Basic.

Peter Ireri holds a BComm degree with a bias in communication and information systems from Daystar University. He also holds a number of certificates in Microsoft solutions development and leads the programming team in the financial solutions in Belcom. He is a seasoned ActiveX Data Objects (ADO) technology adoption and MTS systems.

Dorcas Wanjiru Ngure holds a BEd from Kenyatta University. She is currently pursuing an MBA in information systems at the university of Nairobi. She is in charge of training and application solutions testing at Belcom and is an adoption trainer for network solutions for all MTS applications using ActiveX Data Objects (ADO)

Samuel Mbatia holds a Diploma holder in information systems and a seasoned Microsoft technology solutions developer. He holds a number of certificates from Microsoft and leads the implementation and testing and support of all Belcom Systems. He is an all round network implementation expert.

6 Outputs
6.1 Activities Schedule

Activity	Months							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Assessing of data types for best structured database	▓	▓						
Evaluation of the proposed analytical tools		▓						
Proposing the best operational platform	▓	▓	▓					
Phased design of the operational database MIS	▓	▓	▓	▓	▓	▓	▓	
Production of a working prototype (from design)	▓	▓	▓	▓	▓	▓	▓	▓
Testing of operational prototype				▓	▓	▓	▓	▓
Incorporating comments gathered to produce the final version							▓	▓
Translating of a French version for the country database MIS								▓
Preparing a complete operational system manual	▓	▓	▓	▓	▓	▓	▓	▓
Provision Of Technical Support								▶

6.2 Other Deliverables

Belcom will deliver regular reports on a bi-weekly basis, detailing the progress so far achieved. Where possible we shall endeavor to explain delays or highlight any development that may enable the project to be delivered earlier than was initially expected.

7 Financial Proposal
7.1 Resource Requirements Budget

No	Item	Man Days
1.	Assessing of data types for best structured database	120
2.	Evaluation of the proposed analytical tools	30
3.	Proposing the best operational platform	30
4.	Phased design of the operational database MIS	360
5.	Production of a working prototype	750
6.	Testing of operational prototype	60
7.	Incorporating comments gathered to produce the final version	60
8.	Translating of a French version for the country database MIS	60
9.	Preparing a complete operational system manual	60
10.	Provision Of Technical Support	Lot

7.2 The Budget

No	Item	Man Days Required	Fees (US$)
1	Assessing of data types for best be structured database	120	30,000
2	Evaluation of the proposed analytical tools	30	7,500
3	Proposing the best operational platform	30	7,500
4	Phased design of the operational database MIS	360	90,000
5	Production of a working prototype	750	187,500
6	Testing of operational prototype	60	15,000
7	Incorporating comments gathered to produce the final version	60	15,000
8	Translating of a French version for the country database MIS	60	15,000
9	Preparing a complete operational system manual	60	15,000
10	Provision Of Technical Support	Lot	14,400
Totals		**1530**	**396,900**

Appendices

CV's of Key Players

Kiringai Kamau – Team Leader

Name: Kiringai Kamau   **Contact Address:** P.O BOX   35046, NAIROBI
Nationality: Kenyan   Tel: Office: 254-2-240567/240571, Mobile: 072-800986
Fax: 254-2-332984
E-mail: wilpower@nbnet.co.ke

Key Competencies
An accomplished business consultant trained in management, finance, consulting and information technology, with skills in micro-finance development and small and micro-enterprise development and hydrological systems analysis and design. Chief consultant/trainer in own founded companies that produce software and modern management approaches nationally.

Information Technology: Development, Management, Support and Training
Current
IT Consultant with Vista Capital, a consortium of Financial Information systems advisors in the East African region.

Development of Small Business Support Software Solutions
Involved with a team of visual application developers in the development of software solutions for the records and credit management for small and micro enterprise firms. This is WillPower Enterprise Development effort to provide an affordable electronic bookkeeping solution. The solution is intended to facilitate credit rating for our own cooperative society based micro finance company.

Development of Cooperative Society Management Software Solutions
Involved with a team of visual application developers in the development of software solutions for the management of loans processing for cooperative societies in the country. This is WillPower Enterprise Development effort to provide an electronic system for the cooperative sector now that cooperatives are going online process-based nationwide. The solution is intended to facilitate effective credit management and provision of a management tool for cooperative society management.

Development of Business Management Software
This is a software suite that has become necessary for business managers who need an affordable software solution for all the business activities they may be involved in. The solution covers all areas such as general ledger, sales ledger, purchases ledger, stores management, asset management, financial management and all that a business manager might seek for in developing a sound business management suite.

1986 – 1997: Development, Support, Sales & Marketing, Management and Training
Has been involved since 1986 in the development of national systems for the Kenya Government such as the Budget System, Income Tax PIN system, Kenya Military Networked Stores Management Systems, Training of senior officers in the government up to PSs, Generals in the Military, Business Executives and Corporate Managers. Has also been in sales and marketing for Oracle Corporation, Support for Sun Micro System's SPARC based solutions, management of water hydrological and management solutions, among others.

Other Relevant IT Expertise
Current: Director of training, WillPower Institute
1998: Training of all staff in Juni Insurance Brokers in computer awareness.
1997: Training of senior executive secretaries in the Uganda Investment Authority

1995-1997: Training of all the staff of the Defense Staff College, Karen on computer awareness, desktop publishing and network implementation with Novell NetWare.
1994: Training of senior managers in the education department of the Kenya Wildlife Service.
1993: Training of Central Bank of Tanzania's Information Systems Analysts on UNIX operating system introduction and Systems Management training

1990-92 Training for senior managers, including the Permanent Secretary Ministry of Health. Training conducted on using computers to dispense effective district health management information systems and computer awareness.

Training for Senior Managers of Family Planning Association of Kenya on computer awareness.

Training for Assistant Commissioners of Income tax on computer awareness and effective design and implementation of Tax Information Systems in Kenya.

Training of new graduates in the Ministry of Finance, Microcomputer Information Systems Department on the use of the UNIX operating system for systems implementation.

1987-1989:Operations and Managing with Computers for senior managers at the Ministry of Water Development.

IT Consulting Experience
Current: Solutions Analysis Consultant, WillPower Communications Ltd
1995-96: Consulting services to the Department of Defense - Kenya on the implementation of a Wide Area Network and Pilot implementation of the project at the Defense Staff College, Karen.

1993: Recommendation as an active member of the education committee on a national education curriculum of examination for the computer industry in Kenya.

1992: Consulting services in the installation of District Health Management Information system for the Ministry of Health, project done under the auspices of Thunder & Associates Inc.

1992: Consulting services in the installation of a centralized Tax-payers Management Information System for the Value Added Tax department, project done under the auspices of Thunder & Associates Inc.

1990-1991: Consulting services to the Income Tax Department on the implementation of a wide area network database management system, which put forth the implementation of the PIN system, project done under the auspices of Thunder & Associates Inc.

1990: Consulting services to the then Ministry of Water Development on the centralization of the information systems in the ministry, project done under the auspices of Thunder & Associates Inc.

Management Experience
Communication
1995-96: Consulting Services Manager for Systems Reliability Ltd. the local representatives for Racal Datacom UK Ltd. While on this employment and with my personal involvement, the company presented proposals for communication solutions to Barclays Bank, Kenya Commercial Bank and Co-operative Bank and implemented wide area communication links for Kenya Shell, Barclays Bank Card Center, KCB Card Center, Co-operative Bank Card Center.

Databases
1995-96: Implemented database system in Oracle7 for the department of Defense, Defense Staff College - Karen.

1994: Made an automation proposal and implemented the same for the Nairobi Stock Exchange on Oracle 7.

Network Operating Systems
1995-Current: Head of Software Solutions and Consulting Services WillPower Communications Ltd. The main task involves the support and implementations of Network solutions on Open systems such as Sun Solaris, SCO UNIX and Novell NetWare.

Project Management
Current: In-charge of business counseling for small business owner managers who seek to transform their business to effectively managed business entities. Has facilitated a number of profit-centered transformations for a number of business holders particularly of the aspect of business process change and management.

1995:   Managed the implementation of a Local Area Network for the Defense Staff College - Karen, from the LAN design, Information Systems Design, Implementation and Commissioning and the associated training. Participated to a very large degree in ensuring that the deliverables are ready in time.

Organizational Management Experience
Current: Managing Director, WillPower Communications Ltd, in charge of all business development, personnel management, consulting, systems design and coordinating the functions of consulting company that develops and markets software for schools, small businesses and the medical sector.

1993-4 Marketing Manager Software Technologies Ltd, in charge of business development and support services for the then sole Oracle distributor in East Africa. Was in charge of the development of key systems in the financial sector especially the computerization of the Nairobi Stock Exchange.

Microcredit Experience

Currently Principal Consultant of WED-Africa Microcredit, an innovative microcredit company that combines microcredit with training and record keeping thus avoiding the problems wrought to microentrepreneurs when they seek credit from formal banking organizations.

The program is currently running in three provinces of: Nairobi, Rift Valley and Central Kenya, in the major towns of the said provinces. Kiringai's involvement in this innovative programme has created a microcredit programme that facilitates support of more sustainable businesses than has ever been done in the microcredit history due to infusion of technology and traditional models.

Kiringai has also been involved in consulting and training for Kenya Women Finance Trust, Ebony Microfinance, Cooperatives affiliated to KUSCCO that are seeking to develop sustainable microcredit based programmes for which he runs the entire programme nationally for KUSCCO.

Micro Enterprise Development Experience
Current
Business Counseling
Sub-contracted by British Council to implement a DFID funded poverty reduction program through entrepreneurship counseling and training intervention. The program runs in four phases over a 4-year period starting May 1999. My role is to identify and train entrepreneurs to start or expand their businesses.

Capacity Building
Engaged in June 1999 by Ebony Micro Finance, a Micro Finance Institution in Nakuru and Eldoret providing credit to SMEs. Facilitated in the development of operational systems, which were later implemented throughout the branches. In addition completed establishment of linkages with key donors for the financing of the credit scheme.

Business Counselor Training
Has been sub-contracted by British Council to conduct business counselor training in en effort to develop the capacity of Mwezi Kali Service Provider Organizations' business counselor base. Has undertaken training for P-MAT in Nairobi, Export Development Services in Nairobi, WillPower Enterprise Development Ltd in Nairobi, SAMED in Nairobi, IESCO in Nairobi, KICK in Kisumu, IRAM in Kakamega, Dominion Consultants in Nairobi and Central Kenya, Kicher in Nakuru and PERT in Northern Rift Valley. The program is intended to develop capacity for service providers in the said towns to enable them train and council small and micro enterprise owners at the national level.

IT Based SME support
Development of small and micro enterprises records management software, which has been adopted by one Micro Enterprise training company to assess the performance of, counseled businesses. The software keeps records for multiple businesses and is useful for credit rating and other aspects of organizational management.

Micro Enterprise Training Experience
Involved in training of business start-up and growth clients for K-MAP since 1997
Involved in business training and counseling for Enterprise Investment Mobilization Company which was founded in early 1999 for small enterprise saving and credit scheme countrywide. This

organization seeks to combine business training, counseling and micro-finance using our own designed custom designed software

Involved in training and business consulting for WillPower Institute, WillPower Enterprise Development, Kicher Ltd and K-MAP. Have designed and implemented training programmes for large and small businesses in Kenya. Was a part time lecturer in Information Systems at the Dynamic Institute of Management and Accountancy between July 1990 and March 1993.

Training and Counseling of business entrepreneurs for K-MAP. Have been involved in proposal writing for K-MAP and WillPower Enterprise Development clients.

Water Sector Experience

October 2000: involved in a review of *Private Sector Participation in the Rural Water Supply and Sanitation*, a project of the World Bank for the Ministry of Water development. My role was Micro-Enterprise Specialist. The lead consultant in this effort was CAS Consultants, a firm of Engineering Consultants.

October 2000: involved in a review of *Financing Mechanism in the Rural Water Supply and Sanitation*, a project of the Swedish International Development Agency (SIDA) for the Ministry of Water development. My role was Microfinance/Micro-Enterprise Specialist. The lead consultant in this effort is CAS Consultants, a firm of Engineering Consultants.

1987 – 1989: Hydrologist/Surface Water Specialist Ministry of Water development in charge of collecting, analyzing and advising on water schemes viability and the effect of water scheme election upstream of human settlements.

Education & Training:
    Current: Enrolled Masters of Business Administration (Strategy) at the University Of Nairobi
    Post Graduate Diploma in Information Technology, University of Nairobi, 1990
    B.Sc. Hons (Statistics-Quality Control/Comp Science) University of Nairobi, 1986
    Counselor Verifier Certification British Council, 1999
    Counselor Trainer Certification British Council, 1999
    Counselor Training Certification K-MAP, 1997
    CPA Part I, KASNEB, 1987
    Certificate in Banking, KASNEB, 1987

Musalia Kihamba – Database Consultant
  Personal Details
  Name: Musalia Kihamba
  Personal Details: Kenyan, Male, And Married
  Day Time Contact: 0733-801742, 240567/71
Education and Qualifications
  - BSc. (Mathematics) - University of Nairobi.
  - Certification in Designer/2000 & Developer/2000 (Oracle Development Tools.)
  - Oracle Certified Professional – Introduction To Oracle: SQL and PL/SQL
  - Oracle Certified Professional – Database Administration
  - Oracle Certified Professional – Backup and Recovery Workshop

Training Experience - Major Companies Trained
  - Kenya National Examination Council   -   Oracle Developer and Designer
  - Kenya Revenue Authority   -   Oracle Developer and Designer
  - Water Resource Assessment Project (GoK)   -   Oracle Developer and Designer
  - Uganda Telecomm Limited   -   Oracle Developer, DBA Track
    Unix
  - Uganda Commercial Bank   -   Oracle DBA Track
  - Celtel Uganda   -   Oracle DBA Track
  - Credit Finance Corporation   -   Oracle DBA Track

Employment Details
  2002   Director Database Solutions, WillPower
  2000 to 2001:   Software Technologies Ltd., Uganda – Training Instructor
  1999 to 2000:   Software Technologies Ltd., Nairobi - System Analyst/Programmer

  + Development of Container Tracking System for Kenya Ports Authority using Oracle
    database and development tools.
  1995 to 1999: Executive Support Consultants Ltd., System Analyst/Programmer
  - Development of Pensions Information Management System for Pensions Department,
    Ministry of Finance - Kenya Government; using Oracle 6 database and tools.
  - Development of Budget Outturn Information System for the Ministry of Finance -
    Kenya Government; using Oracle 6 database and tools.
  - Training and Support for SCO Unix

  1994 to 1995:   **Caltex Oil (K) Ltd., System Analyst/Programmer**
  - Customization of Budget Monitoring System on Oracle Database
  - Support for Legacy systems for sales management

  1991 to 1994:   **Income Tax Department, (GoK), System Analyst/Programmer**
  - System Administration in SCO-Unix Operating System
  - Conversion of Accounts Receivable System from Ingress database to Oracle database
    platform.

- User training on developed systems.

Joseph Nguru Kabugi
Personal Details
Name	JOSEPH NGURU KABUGI
Nationality	Kenyan
Family Status	Married
Languages	Kiswahili, English

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               Nairobi,
               Kenya.
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Email   kiramba@hotmail.com

Current Career Details
Job Title: IT Infrastructure Manager
Company: Belcom CT

Employment

IT Infrastructure Manager
Belcom CT

Responsibilities
i. Development and management of communication infrastructure
ii. Specification and procurement of all new IT hardware.
iii. Specification and management of external IT services and contracts.
iv. Specification and procurement of IT training services.

Overview of Structure
Infrastructure Team:
2 Direct reports (Assistant Managers)
1 Systems Engineer (Outsourced)
4 Help Desk Assistant
1 Senior Supervisor

Operating environment:
Equipment: 240 PCs, 19 Servers, 110 Printers, 53 UPSes, 110Electronic Weighing Scales, 5 PABXes.
Network Operating System: Windows NT 4.0 Servers
Clients: Windows NT Workstations and Windows 95.
Networking protocol: TCPIP.
Supported Applications: SunSystems (SB and SA), Agricultural ERP (Harvest-IT), MsOffice Suite

Recently Completed Projects.
i.   **Installed Wide Area Network spanning Kerenga, Kericho, Nairobi, and Mombasa.** With
        this network, we were able achieve the following: -
        a) Reduced SunSystems from three to one server system. Reduced licensing costs on
            SunSystems by USD 6000 pa.
        b) Implemented single server email system based on Ms-exchange server & Ms-Outlook
            client serving the above locations.
        c) Deployed Lotus Notes
        d) Implement centralized network services and IT support for enterprise network. Reduced
            support requirement by 2 network administrators. Approx savings USD 10,000 pa.

ii.   **Modernized Local area networks for Kericho Head Office, Kerenga and Mufindi (TZ)
        offices.**
iii.   **Implemented PABX interconnections between Mombasa-Nairobi-Kericho-Kerenga**
        utilizing on **Voice over IP (VoIP)** technology on the WAN.
        a) Revenue Savings Ksh 500,000 pm.
        b) Major timesavings in enabling desk-to-desk dialing.
iv.   **Implemented Internet based connection between Brooke Bond and Unilever SA,**
        working with the Unilever team in Durban.
        a) Re-routed email and notes traffic for Unilever companies in Kenya through the Internet
            and improved mail delivery performance from hours to minutes, notes replication from
            days to hours.
        b) Brought internet on the desk
        c) Foundation for e-commerce for the company.
v.   **Managed Y2K project for Brooke Bond Kenya.**

On going Projects
i.   **Integrated WAN for Kericho plantations**, benefiting 40 units of the company in an area
        60km end-to-end. The project involves analysis of the available technologies and the
        suppliers of the same in the local market. Approx value USD 500,000. Expected Benefits
        a) Enabling direct email access for plantation users
        b) Make possible complete and speedy information systems integration between the
            production units and the corporate head office.
        c) Enable a single PABX voice network for region.

ii.   **Outsource management services for Brooke Bond Kenya infrastructure.** I have recently
        designed a framework where all of Brooke Bond infrastructure will be managed by a third
        party through a service level agreement. Agreement will cover hardware maintenance,
        Helpdesk, PABXes, and Network Management. Preliminary discussions have been held with
        prospective third parties, and the SLA is expected to be concluded by end of Nov 2000.

        1994-1998   **Systems Development Manager**
                       Brooke Bond Kenya Ltd

        Responsibilities
        Communication Systems development and operation.

i. Infrastructure development and support.
ii. IT Project Management for new IT systems development in the Group.
iii. IT Security and Disaster Recovery

Accomplishments
i.   Installed Netware/Unix Local Area Networks
iii. Installed and managed electronic mail (cc:Mail) systems and developed in-house team to support them
iv. Developed and implemented electronic weighing system for Brooke Bond Estates
vii.   Implemented a Multi-user Personnel Management Information System (ML~P)

1989-1994   **Asst. Engineer (Telecommunications and Instrumentation)**
              Kenya Pipeline Company Ltd.

Responsibilities
Planning and supervising for the installation and   maintenance of   communication and control equipment.

1988-1989   **Lecturer (Electronics)**
              Kenya Institute of Mass Communication
Responsibilities
Training in radio transmission principles, analog, digital electronics.

Education
1989-1990   **Post-Graduate Diploma in Computer Science.**
              Institute of Computer Science.

Results   Distinction
1985-1988   **BSc. Electrical Engineering, Communications**
              Department of Electrical Engineering.

Results   First Class Honors.

Pre-University
1982-1983   **Kenya Advanced Level Certificate of Examination**
              Alliance High School.
Details   4 Principals (A) passes, 1 Subsidiary (1)

1978-1981   **Kenya Certificate of Examination**
              Njabini Secondary School.

Details   Division 1 Result
Courses, Other Training and valuable Seminars
Nov 1998 **Windows NT, Accelerated Course**
(1 week) Cyber Networks, Nairobi.

Content   Windows NT 4.0 Administration and Windows NT Core Technologies.
Aug 1997   **International Managers Seminar**
(1 week)   By Unilever Management at '4 Acres', London UK

Content   Leadership, Management in the Global environment.

Sept 1995   **South African Managers Course**
 (2 weeks)By Unilever SA at 'Rawdons Hotel', KwaZulu-Natal, South Africa

Content   Business Strategy, Leadership, Corporate Finance.

Aug 1994 **Oracle Introduction Workshop & ANSI SQL Language**
(1 week)   By Software Technologies at their Training Center
Content   Introduction to Oracle & ANSI SQL

May 1994 **Unilever Global Data Communications Program**
(1 week)   By Hewlett Packard & Unilever at Hewlett Packard, Bracknell, UK.

Content   Data Networks in Unilever, email and GroupWare

April 1991   **Fire Fighting**
(4 weeks) By Kenya Aerodromes at Kenya Aerodromes, Nairobi.
Content   Basic Fire Fighting Skills & First Aid

Feb 1991 **Health and Safety in Industry**
(1 week)   By Promin Consultants at 'The Place', Westlands Nairobi
     Content   Industrial Safety Awareness for Managers

Software Systems Skills.

Operating Systems
     Window NT, Windows95, Windows 3.x, MS DOS
     Novell Netware, Unix
Programming Tools
     C, Pascal
     4GLS(DBaseIII$^+$, FoxBASE$^+$), Lotus Approach 3.0.
     C++, Object Windows application framework.
     8086 Assembly Language!

Application Tools
     Microsoft Office, Lotus SmartSuite, Microsoft Project
     PowerSim for Windows (Simulation), Microsoft Visio.