

By Tom Kwanya

ICT Tsunami

ICT Tsunami - KTCIP

Opportunities for Participation



E-Government Initiatives

The Government of Kenya, supported by the World Bank through the Kenya Transparency and Communication Infrastructure Project (KTCIP), will soon spend Ksh 4.455 billion to deploy e-government services in Kenya. Ksh 2.445 billion of this fund will be used to build a suitable e-government environment while the rest (2.01b) will fund the development of applications and content.

This component of KTCIP is primarily targeted at government ministries and agencies to help them to judiciously apply ICT to improve government internal systems, deliver services more efficiently and effectively, and make more information easily and readily accessible to a larger segment of the citizenry.

Benefits of e-government

There are many clear advantages of e-government. First, it expands the reach of services. The digital nature of the services enables them to be delivered at the point of need as long as the person seeking them has access to a computer or any digital device connected to the Internet. With these applications, people do not

have to spend their meager resources and time to come to the government offices for the services. Conversely, the services are taken to them where they are. Thus every connected ICT device becomes a virtual Nyayo House, Jogoo House, Sheria House, Ardhi House or NSSF Building from which critical services are accessed conveniently within the locale. The point of connectivity could be a digital school, kiosk or centre which KTCIP hopes to help establish in every village in Kenya through its Digital Village component.

E-government drastically reduces the costs of offering and accessing government services. The Government of Kenya currently spends billions of shillings to offer services to the Wananchi. Ironically, this is barely sufficient. And the services are not adequate both in quality and reach. E-government digitally centralizes services control but decentralizes access. This reduces paperwork and transport costs which form the bulk of the expenses of offering and accessing government services.

With e-government solutions, the government offices never close down, even on public holidays; there are no unnecessarily long lunch breaks or “hanging coats” syndrome. Anyone seeking public services will obtain them at their convenience and pleasure even if it is at 3am on Christmas morning. Effectively managed e-government systems can operate for years nonstop and seamlessly offer crucial services un-interruptedly. This is not achievable with human systems; people often have to take leave either out of exhaustion or to attend to other socio-economic needs.

E-government systems also increase transparency and radically reduce corruption. Unlike human systems, they are not prone to manipulation and exploitation. They do not solicit, accept or extend favors but operate according to a set of codes and are highly transparent. ICT facilitated e-government systems have no relatives or tribes. They have no emotions and cannot be distracted.

Network Operations Centre

To effectively dispense e-government service, there is dire need to revitalize the current infrastructure to enable the government digitize and deliver core services over the Internet. In recognition of this need, KTCIP will use Ksh 469 million to fund the deployment of a Network Operations Centre (NOC) and a National Data Centre (NDC) to serve as the nerve centre for government networks and repository of government files and information. The government also has plans for a Disaster Recovery Center which will provide real time mirror backup of the NDC.

The NOC will install an IP platform which facilitates better security, performance, manageability and support. The government is also planning a rollout of standard email and document management package i.e. a document management system for automatic filing of important records.

Product vendors and service providers will be the secondary beneficiaries of this component. These include hardware suppliers, networking software and applications vendors, consultants and Internet service providers.

Enterprise Software Licenses

To ensure smooth operation of the expanded infrastructure, KTCIP will also spend Ksh 268 million to purchase enterprise software licenses for government network. Such software will include operating systems, applications and specialized systems such as the document management systems. This will be done in a manner consistent with the standards and guidelines specified in the government’s ICT policy along with the hardware required for storage of data. This component will secondarily benefit software developers and data warehouses.

LAN Connections

Considerable progress has already been made on the establishment of a government virtual private network to allow it to communicate and share files in a confidential and secure manner. All government owned buildings in Nairobi hosting ministry headquarters already have local area networks and most have access to wide area networks and email services. However,

there are still two buildings – Utalii House and NSSF Building – in which small ministries reside which are not fully networked. KTCIP will utilize Ksh 67 million to facilitate the establishment of LANs in these two buildings.

Bandwidth for government offices

Government users are currently accessing voice and data through a satellite link dimensioned at 514Kbit/s (half of 1Mbit/s) which is shared by about 6,000 government PCs with access to the Internet. These connections are shared by about 170,000 civil servants who are supposed to get email accounts. By comparison, this is the capacity for World Bank offices with less than 100 PCs. KTCIP will use Ksh 469 million to support the upgrading of external broadband connectivity access by government offices.

Government Information Portal

This component will seek to strengthen the provision of information on the existing portal developed by the Ministry of Information and Communication (www.information.go.ke). This is in response to the increased demand of web based information services to provide government agencies and the general public with timely information easily.

The development of information services and web content will be funded through a Ksh 167.5 million content-based grants facility.

To upgrade the current capacity of the government to offer web-based services, this component will finance the purchase of web servers (20.1m), Internet bandwidth for key servers (26.8m), computers (6.7m) and software (13.4m). To ensure sustainability, the project will also use Ksh 20.1 million to finance IT support and staff training. A further 13.4 million will be used to support advocacy and public awareness campaigns for the portal.

SMS and IVR e-services

Africa, with Kenya at its forefront, is currently the fastest growing mobile phone market in the world. Over the past five years the continent’s mobile phone use has increased at an annual rate of 65% - twice the global average. In June 1999, Kenya had 15,000 mobile phone subscribers. By the end of 2004 the country had 3.4 million subscribers, and in the last 24 months the number has grown to over 7 million – about 21% of the entire population.

With this high density, mobile telephony is a strategic facility for delivery of government services to the remotest parts of the country. The government has recognized this potential and will develop new SMS and Interactive Voice Recognition (IVR) applications on mobile telephony devices to facilitate seamless countrywide communication which will then be used both for government and private business purposes.

Already, there are such systems developed by the private and non-government organizations to achieve specific communication objectives for identified specialized audiences. For instance, the Kenya Agricultural Commodity Exchange (KACE) now provides certain crop growers with up-to-date commodity information on mobile phones via SMS. This allows them to access

daily prices of five commodities from a dozen markets. As a result, many of the farmers have quadrupled their earnings because they have access to information about potential buyers and prices before making the often arduous journey into urban centers to sell their produce. Again, they are now able to understand and access the markets directly without relying on the greedy and exploitative middlemen. This is the approach the government wishes to adopt to broaden the reach of its services.

To make this dream a reality, KTCIP will utilize Ksh 201 million to fund the development of unique and innovative applications for use by the government and the private sector. This allocation will be disbursed as grants to support the development of at least 15 applications for the private sector and at least three for the government and the public sector.

Technical support and capacity building

To ensure proper installation, deployment, maintenance and sustainability, KTCIP will utilize Ksh 536 million to provide technical services to the government to enable it to develop and sustain a suitable e-government environment.

It will also use Ksh 268 million to build the capacity of public servants to deploy and manage e-government systems. This allocation will also be used to fund change management and buttress professionalism in offering e-government services.

E-government Applications

E-government applications judiciously apply ICT to enable the government to refine its internal systems, deliver services more efficiently and effectively to a larger audience. There is a long list of desirable applications that KTCIP considered but were not prioritized in this phase of the project. Successful considerations were based on:

1. Existence of a champion or change agent who would help reduce resistance from within the government, private sector and civil society;
2. Acceptability of the PPP approach or possibility of a joint venture with the private sector;
3. Potential for improvement of internal efficiency, leading to greater transparency and less potential for corruption;
4. Cost-benefit analysis and possibility for quick wins; and
5. High potential for positive impact for citizens and link to poverty reduction through making service delivery less expensive, less time consuming for the beneficiary and service institution, and less susceptible to fraud.

Phase I - Quick wins

Phase I of the project will comprise quick wins such as digitization of the processes involved in pension administration, driver's license registration and wealth declaration. Appropriate applications will be developed and used to transform services in these departments and arms of government and make them more readily available using ICT infrastructure and portable devices.

KTCIP will spend Ksh 268 million to fund the migration of pension administration to the digital space. This

will result in more transparency and efficiency in the management of the pension processes. In the past, there have been lots of inefficiencies leading to gross errors or delays in pension management. Cases of pensioners even dying on queues seeking their dues have been reported in the press. All this is bound to change for the better with this new scheme. The applications will enable pension administrators to generate up-to-date reports for the pensioners and respond to their enquiries and needs more promptly. They will also receive basic services from the digital centers in their locale without having to travel to Nairobi and shuttle endlessly from one office to the other seeking services.

Driver's license registration and renewal is one common service required by many people and for which they have to travel to authorized centers and endure long queues. In the past, this was coupled with the Road Licenses which were renewed every year. Consequently, one had to visit these centers about twice a year to obtain the services. The systems are generally slow and often obscure. To introduce transparency and revitalize the processes, KTCIP will spend Ksh 134 million to digitize these services and integrate them to the e-government grid. With this, people will be able to access these services on their mobile phones and other digital facilities closest to them. This service sector was one of the most corrupt with numerous brokers and bottlenecks but this will definitely change for the better.

Corruption in Kenya is a deeply rooted vice that has defied many strategies. It mainly affects the public service sector where civil servants grow rich very fast in spite of their meager salaries. There have been many reported cases of clerks with a salary of less than Ksh 10,000 running multimillion accounts and businesses. Definitely, these monies have not been obtained in the right way. Politicians and specifically cabinet ministers have also been tainted with the blight of kickbacks and bribery enabling them to amass vast wealth in very short periods. Wealth declaration was instituted as a measure to curb corruption by public officers by facilitating documentation of personal wealth of people holding public offices. Though these statements were not made public, they are open to arms of government dealing with corruption and related vices. To facilitate transparent registration, updates and administration of these records, KTCIP will utilize Ksh 134 million to digitize wealth declaration process. This will ensure that wealth information of any public officer can be obtained easily when and where need be.

Phase II

The Phase II e-government projects under KTCIP require additional preparation and in-depth planning. This phase will fund the High Court Registrar (201m) and company registration (201m). The project aims to digitize activities in these vital offices and enable the Wananchi to obtain services faster and transparently. Crucial services such as company name searches, booking and registration, for instance, will be much easier to conduct than they are at the moment. Similarly, court administration will be more superior enabling people to get services faster and conveniently. Overall, this phase will improve the quality and shorten the waiting periods for critical services from the two offices.

Phase III

This phase targets population registration (134m), land information and registration (268m) and e-procurement (201m).

Population and citizenship registration is currently an arduous process with majority of qualified persons, especially the youth being left out. Obtaining national identity cards or passports is a torturous process that many people don't even dare to attempt. Digitizing of these services will make applications, processing and collection of registration documents much easier.

Kenya is largely an agrarian economy where land is a very important resource of production. Consequently, land ownership is a very emotional and strategic matter. This explains why there are many instances of fraud and court cases about land in the country. Today, it is not easy to confirm who owns what. Records at the lands offices are normally out of date or generally unreliable

leading to cross-ownerships and multiple title deeds. The only remedy out of this is a transparent digital system where people can register and obtain land records easily. Currently, conducting an ownership search takes so long and is open to corruption. KTCIP aims to revolutionize land registration and information services to enable ownership searches, registration and changes to occur seamlessly and transparently.

Due to the amounts involved, government procurements are normally very delicate. Suppliers ordinarily go full throttle to obtain the orders; they are ready to spend colossal amounts of money to influence the tendering process so as to win them. Consequently, tenders are shrouded in secrecy only penetrated by suppliers perceived to have the right links. This results in unethical practices such as over-pricing, kickbacks, bribery or even non-delivery of services and goods. KTCIP will support the establishment of e-procurement systems to enable harmonized and transparent procurement of goods and services. ▀

KTCIP E-Government Initiatives (Environment & Application)

E-Government Environment	Activity or Application	US\$ Millions	KShs. Millions
Infrastructure	Network Operations Centre	7.00	469.00
	Enterprise Software Licences	4.00	268.00
	LAN Connections (2 bldgs)	1.00	67.00
Communications	Bandwidth for Government Offices	7.00	469.00
	Government Information Portal	4.00	268.00
	SMS & IVR e-services	1.50	100.50
Consultancy	Technical Assistance	8.00	536.00
	Capacity Building	4.00	268.00
Total Environment		36.50	2,445.50
E-Government Applications:	Activity or Application	US\$ Millions	KShs. Millions
Phase 1 - Quick Wins	Pension Administration	4.00	268.00
	Drivers License Registration	2.00	134.00
	Wealth Declaration Forms	2.00	134.00
Phase 2 - In-depth Planning	High Court Registrar	3.00	201.00
	Company Registration	3.00	201.00
Phase 3 - Extra Preparation	Population Registration	2.00	134.00
	Land Information & Registration	4.00	268.00
	e-Procurement	3.00	201.00
Reserves	Additional applications	7.00	469.00
Total Applications		30.00	2,010.00
Grand Total		66.50	4,455.50