

ICTs for **MODERNIZING GOVERNMENT** in Africa



eTransform AFRICA



This document, on the use of ICTs for Modernizing Government in Africa, is the summary of the full sector study which was carried out by a team from Deloitte, led by Kamal Mukherjee and comprising Trish Alexander, Liezl De Graaf and Omri Van Zyl with assistance from Hugo Lotriet, Kirsten Krauss and Debashis Nag. The full report is available at www.eTransformAfrica.org. This document forms chapter seven of the publication edited by Enock Yonazi, Tim Kelly, Naomi Halewood and Colin Blackman (2012) “eTransform Africa: The Transformational Use of ICTs in Africa.”

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*Information and communication technologies (ICTs) have the potential to transform business and government in Africa, driving entrepreneurship, innovation and economic growth. A new flagship report – **eTransform Africa** – produced by the World Bank and the African Development Bank, with the support of the African Union, identifies best practice in the use of ICTs in key sectors of the African economy. Under the theme “Transformation-Ready”, the growing contribution of ICTs to Agriculture, Climate Change Adaptation, Education, Financial Services, Government Services and Health is explored. In addition, the report highlights the role of ICTs in enhancing African regional trade and integration as well as the need to build a competitive ICT industry to promote innovation, job creation and the export potential of African companies.*

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INTRODUCTION

ICT is fundamentally changing the way in which government representatives, citizens, business and other agents of the state interact throughout the world as well as in Africa. The public service sector has strategic significance as it impacts not only on the well-being of individuals, families and communities and on individual national governments but indirectly on the stability of the global economy. The associated high expectations, particularly regarding the speed and flexibility with which public service providers can respond to individual requests, provide feedback on programmes and expenditure and handle national crises, are extremely challenging.

However, attention to how governments communicate should not overshadow the importance of the accuracy, completeness and relevance of what they communicate. This requires achieving a balance between the citizen-facing

aspects as well as the underlying efficiency and effectiveness of back-office systems. Hence, not only are the delivery tiers of eGovernment and mGovernment important, but attention must also be paid to the foundational tier and the design, development and implementation of ICT systems making up the enabling tier. A comprehensive framework for service delivery comprising these three tiers is illustrated in Table 1.

Table 1 next page →

Efficient service delivery is frequently hampered by programme developers who do not listen sufficiently carefully to the poor and hence are not able to identify their needs and prioritize them. Planning that focuses on supplier interests rather than those of the end-user is also a problem.

Table 1

ICT-enabled public service delivery framework

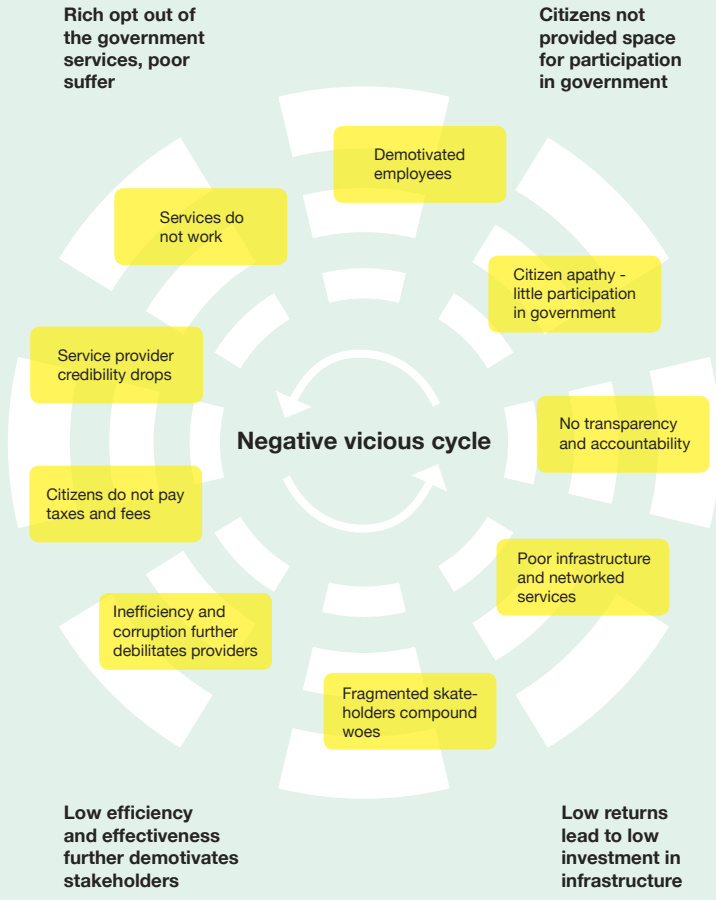
Foundational Tier: constitutes the core foundations for service delivery	Performance monitoring	Legal and quasi-legal	Institutional structure
	Well-defined service objectives Monitoring and evaluation indicators Monitoring mechanism	Codified laws and rules in conformity with processes Flexibility to enact rules for enhancing service delivery	Dedicated institutional structure for service delivery Appropriately skilled and empowered Clear responsibilities
Enabling Tier: enables efficient and effective delivery of services	Organizational capability	Procedures and processes	Systems and technologies
	Organizational staff strength Staff capability regarding rules, process and technology Capability related to customer service	Re-engineered and standardized processes Clearly defined role allocations Well-defined timelines and platforms	Integrated data structures Standardized applications Omnipresent networks
Service Delivery Tier: in direct contact with the service-seeker	Service delivery	External communication	Front office or citizen interface
	Service delivery principles Service delivery parameters Redress or escalation mechanisms	Regular awareness sessions Institutionalized customer feedback Consultative mechanisms	Front office, ambience or infrastructure Service delivery channels Helpdesk features

Figure 1 represents the vicious cycle in which service delivery in developing countries is often trapped. A way of breaking the cycle is by investing in ICTs and other infrastructure as new, ICT-enabled systems will increase accountability and transparency and improve many other aspects of service delivery. When citizens see the benefits, demand for services will grow resulting in increased government revenue, followed by improved employee motivation and prompting more such investments. Hence this vicious cycle can be transformed into a virtuous one.

ICTs, however, cannot miraculously turn bad governance into good, although they can be used as tools under the right conditions and circumstances to effectively reach out to communities as part of the reform process. ICTs are therefore necessary but insufficient as a solution. Associated factors, like pro-poor policies, decentralized decision-making, education, basic infrastructure and political will, are all pre-requisites for effective service delivery. Insufficient fulfilment of these conditions will likely lead to inadequate outcomes.

Figure 1

The vicious cycle of ineffective service delivery



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LANDSCAPE ANALYSIS

Landscape analysis of ICT and public service delivery in industrialized nations and emerging economies highlight trends in six major categories:

1. Commitment to excellence in public service delivery
2. Accountability, transparency, citizen collaboration and interaction
3. ICTs as a means of extending social democracy
4. Convenience and efficiency in service delivery
5. Exploiting technological advances to meet service delivery objectives

6. Reform and re-engineering of government

Examples of best practice or extended uses of technologies already employed are outlined below. Also described are examples of implementations from Africa to illustrate the options, opportunities and constraints. Some ICT-enabled public service implementations reveal particularly good opportunities for replication elsewhere. Although there is no intention to suggest that “one size fits all” or that “best practice” is transferrable to all other contexts, these examples can inform and possibly inspire programmes elsewhere.

Commitment to excellence in public service delivery

At national level, commitment to excellence in public service delivery by political as well as executive leaders is generally expressed as policies, legislation, regulation and contributions to international bodies. Mechanisms and budget allocations are needed so that these intentions can be enforced. This trend is located in the foundational tier of the framework.

Although ICTs are recognized as being important by the role players at this level and technologies are specifically referred to in their statements, it is essential

that these technologies are acknowledged as being necessary but insufficient in raising the standards of service delivery. Associated factors, like pro-poor policies, decentralized decision-making, education, basic infrastructure and political will are all pre-requisites for effective service delivery. Insufficient fulfilment of these additional conditions will likely lead to inadequate outcomes even if ICT use is increased.

The clearest example of a commitment to excellence is the Open Government

Partnership, launched in 2011 with Brazil, Mexico, Indonesia, Norway, the Philippines, South Africa, the United Kingdom and the United States as founding members. These nations made commitments to open government, supported by individual national plans. A further 41 countries undertook to develop their own national plans by May 2012. The plans published by the first eight nations include specific actions: publishing information regarding government expenditures and budgets, improving access to information laws, harnessing information technology, improving means by which the public can participate in government, and improving corporate accountability outside the public sector.

Public service monitoring and evaluation can be improved by regularly using purpose-built tools such as the Canada Common Measurements Tool developed by the Government of Canada together with the Institute for Citizen-Centred Service. This is an easy-to-use, computer-based, client-satisfaction survey instrument that allows jurisdictions to be compared and ensures that public-sector managers are able to understand client expectations, assess satisfaction, and identify priorities for improvement.

Within Africa, Mauritius and Namibia in particular have demonstrated commitment. The National ICT strategic plan for Mauritius (NICTSP) includes eGovernment as one of ten domains of concern. The area of strategic importance most relevant to eGovernment is to accelerate ICT adoption in society by embracing eGovernment and by taking

measures towards making ICT widely and equitably available. Three strategies pertaining to eGovernment are:

1. collaborate widely when designing and implementing eGovernment systems so as to enhance citizen convenience and improve internal efficiencies and effectiveness in the government;
2. undertake key investments for higher visibility of eGovernment; and
3. accelerate the uptake of ICT in society by making it accessible, available, applicable and affordable to everyone.

Recommendations made in the NICTSP relate to a revamped institutional structure and eGovernment intervention. Implementation risks were identified and implementation and review plans were drawn up in 2010 and set out a course of action for the following three years (2011-2014).

The Government of the Republic of Namibia (GRN) has formulated a National eGovernment Policy whose main objectives are to:

- Provide credible information about political processes and government services that will be available to citizens at all times;
- Progress from passive information access to active citizen participation;
- Fulfil citizens' needs and expectations by simplifying interaction with GRN and providing services based on their choices;

- Provide speedy, transparent, accountable, efficient and effective administration;
- Widen access to rural areas and other marginalized sections.

Accountability, transparency, citizen collaboration and interaction

The internet and mobile applications make it increasingly easy for citizens to interact directly with government and social media, such as Twitter and Facebook, can also facilitate dialogue between representatives of government and members of society and hence enhance transparency and accountability. Increasing numbers of governments are recognizing this by implementing “transparency portals” accessible via the internet, where interested parties can find current, detailed information about government procedure and process as well as decisions made, activities, budgets, expenditure and official project reviews.

There are also cases where complete data sets originating from government sources are available on the internet for access by everyone (open data) but not many of these come from developing countries. These transparency mechanisms allow public servants to be held accountable by donors and citizens and form at least the first part of citizen collaboration and interaction although they do not necessarily include features

that allow input from the citizens back to the government. These new technologies form the delivery tier of the framework.

One example of a transparency portal is found in Timor-Leste (East Timor) launched in January 2012 (<http://www.transparency.gov.tl>). Portals typically focus on fiscal transparency but there are others that focus on particular sectors, e.g. forestry.

Open data is the embodiment of the ideal that data should be freely available for everyone to use and republish, without restrictions from copyright, patents or other control mechanisms. These have generally only become available since 2009 but some collections now house thousands of open data sets. Examples are from the Australian, Canadian, Kenyan, Norwegian, United States and United Kingdom governments.

There are many examples worldwide of legislation that protects the citizens’ right to information. One example is India’s Right to Information Act.

Mobile applications can provide a versatile, adaptable management information system for crowd sourcing and hence for citizen collaboration. Several applications that have been used by projects in Africa to improve transparency, and hence reinforce accountability, involve crowd sourcing as a means of collecting information that is then overlaid on interactive maps. Ushahidi was used to report: post-election violence in Kenya in 2008 and wildfires in Russia in 2010. In Egypt, FrontlineSMS is used to collect reports of harassment via SMS. FrontlineSMS is used by a Zimbabwean civil society organization, Kubatana.net, as an information service for human rights organizations. RapidSMS is useful for

data collection in geographically remote areas with limited infrastructure. Extractive industries locations and data are mapped in Ghana. In Dar Es Salaam community assets, water points, etc, are mapped during a series of “hackathons” financed by the World Bank and other donors. The World Resource Institute’s Forestry Transparency Initiative is financing a map of DRC’s forests, while the WWF is financing Moabi Platform in Cameroon.

Kenya is the first country in Africa to launch a national open data initiative (national census data, government expenditure, parliamentary proceedings and public service locations).

ICTs as a means of extending social democracy

Social media and mobile devices can facilitate effective citizen participation. eParticipation includes contact between people and their elected officials, access to public information, participation in public decision-making and monitoring how government programmes are being run. Examples of social media for the exchange of ideas and requests for comments on government policies are Challenge.gov in the United States and the use of Twitter by the Israeli Consulate in New York City.

Social media are increasingly used to handle crises. For example, in the recent

Libyan uprising, the US and UK embassies in Tripoli used Facebook to connect their citizens with ferries so that they could escape danger. The Haiti earthquake, typhoon Morakot disaster in Taiwan and flooding in Thailand are recent natural disasters where social networks were used effectively by citizens to obtain and contribute essential information.

Examples of eParticipation are growing in Africa, e.g. the ADEN project in Burkina Faso, Maison du Citoyen in Cape Verde, and Abidjan.net launched by the Ivoirian diaspora.

The use of ICTs during “The Arab Spring” is another recent example of the use of social media. Mass protests sweeping through the Middle East in early 2011 highlighted the distinct role that ICT and digital social media tools and networks could play, particularly

with respect to organization and communication. Social media networks played an important role in the disintegration of Tunisia and Egypt, while also contributing to sociopolitical mobilization in Bahrain and Syria.

Convenience and efficiency in service delivery

The importance of multi-channel service delivery is illustrated by the various SMS-based services in the Philippines that provide citizen feedback, information dissemination and service delivery.

In the German Mobile Citizen Services (MoBüD) project, currently undergoing pilot testing, mobile devices are used by civil servants who regularly visit neighbourhood centres to connect with central databases and applications rather than directly by the service seekers. Citizens, therefore, do not need skills or equipment to access the eGovernment applications or interfaces themselves but benefit from less travel time, cost and queues as they visit local centres.

Portals are part of the delivery tier of web and mobile citizen interfaces and are intended to make it easy for citizens to find information and access services. They are ideally one-stop-shops, backed by integrated procedures and processes and the collaborative delivery

of public services at the lower levels of the framework. There are many African countries where eGovernment portals give citizens access to services. Angola, Botswana, Ruanda and South Africa all have well-designed web sites that offer information about government and services and some interaction such as application for licences or responses to requests for specific information such as progress of a particular application.

Service delivery needs to be accessible via more than one channel. Access to government web sites via mobile phone rather than via a computer is one example of multi-channel service delivery. This only addresses the needs of those who have mobile phones that currently allow this. The alternative is to equip community centres with computers, and to facilitate knowledge sharing and build capacity. There are many examples of projects to extend access to information by setting up multi-purpose community centres (MPCC), Public Internet Access Points (PIAP) and telecommunications networks to remote

communities in rural areas. Amongst those in Africa are Nteletsa Botswana; Kitsong centres, Botswana; Knowledge sharing initiatives, Egypt; Marwan Project, Morocco; Community Multimedia Centres, Mozambique; and eBrain, Zambia.

National identity systems deserve particular attention as several African countries are reviewing their national systems for identifying citizens and others have recently adopted such systems. Examples include: Angola, Uganda, Botswana, Nigeria, Sudan and Kenya. The case of Somalia reveals important issues. The ePassports and ID cards could be provided by the contractor within four months, but this is the off-the-shelf technology component. The difficult and expensive process of issuing these will take an estimated five years. In the case of

Somalia this process will be complicated by the political situation.

Related systems involve recording life events (birth, marriage, death) – the Moroccan eFaz system is an example of renewed efforts in this regard.

Whereas in the United States and other western countries the debate related to compulsory national identification systems regarding cost, effectiveness, privacy and civil liberties starts at the time that the systems are proposed, in Africa the debate seems to arise only after these systems have been approved and development is far advanced. Only then is attention focused on cost, challenges involved with accurately identifying and registering all bona fide citizens and possible unintended consequences such as disenfranchisement.

Reform and re-engineering of government

Business process re-engineering (BPR) exercises have been carried out by the public services sector in order to modernize government in Ethiopia and Namibia. Key points arising from these include:

- Management relies on the rules, procedures and regulations of the regulatory agencies.
- ICT is crucial in re-engineering business processes. African countries
- have a latecomer advantage since in many cases computerization has not taken place; therefore BPR can be followed by computerization.
- The government needs to pay attention to change management and appropriate awareness raising efforts should accompany the BPR effort.
- BPR strategies for different organizations are usually different, principally

divided according to the extent to which organizations are customer-facing.

The use of ICT to create and support collaborative networks are another aspect of reform and re-engineering. ICT is used to create and support networks between different stakeholders and service providers but each case places emphasis on different aspects of the network. For instance, in Ethiopia's WoredaNet, the communications

network receives particular attention and there are a wide variety of users, whereas in the case of GCNet in Ghana two systems are linked that have complementary functionality but are both related to import and export. The third type of network, iNetwork in Uganda, was created to share knowledge and information on how to use ICTs. All of these systems are intended to facilitate collaboration, communication and partnerships and national agencies play some role in each of them.

Exploiting technological advances to meet service delivery objectives

Examples of how technological advances may be exploited include:

- Establishment of an automated backend to an open data portal so that data is always up-to-date without requiring a dedicated person to maintain the site or update data manually;
- Sophisticated mobile software applications, e.g. allowing secure payment, as in the US Department of Corrections, Arkansas, inmate deposit service, property tax payments;
- The German Mobile Citizen Services (MoBüD);
- Advanced biometrics used for identification.

Specifically with regard to Africa, mobile telephone solutions are very important although the most recent mobile applications are not necessarily the best options for Africa. Biometric technologies are being introduced in national identification cards and ePassports with digital colour photographs. Substantial amounts of additional data can be stored directly on the card and are updateable and the cards are counterfeit-resistant, durable and do not need access to communications infrastructure. Other examples include linking social media initiatives with other technologies, e.g. interactive maps.

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CASE STUDIES

Deeper analysis of Malawi's Integrated Financial Management Information System (IFMIS) allows identification of the circumstances under which ICTs can be applied successfully and quickly. This creates opportunities for transformation in other African countries, some of which have a poor track record of IFMIS implementation. In Africa, the main drivers for most of the ambitious IFMIS projects are an urgent

need to improve Public Financial Management (PFM) practices and to increase development funds substantially. Although this case does not aim for total integration of systems or a customer-facing interface (eGovernment), it is an example of reform and re-engineering of government as well as providing the necessary high standard financial information for accountability and transparency. The case is described in Box 1.

Box 1

Malawi's Integrated Financial Management Information System (IFMIS)

In line with the country's Financial Management and Transparency and Accountability Project, the IFMIS in Malawi was developed and implemented to modernize the public accounting system. The main aim was to ensure that it was efficient, linked to the budget development system and would improve and strengthen public expenditure management and bring about fiscal discipline.

More specifically, the IFMIS was set up with the following objectives in mind:

- To integrate all accounting modules
- To provide government with a state of the art computerized accounting system
- To ensure that other sub-systems properly interfaced with IFMIS

- To enable government to reduce domestic borrowing and the accumulation of arrears
- To assist government in the production of timely and reliable financial data.

Three lessons from Malawi's IFMIS are instructive:

- The Malawian draft ICT policy provides a framework that has been successfully used elsewhere and can be readily embraced in other developing countries.
- Large ICT projects require buy-in at the highest levels of government, but also at the lowest levels from those expected to work with and manage this technology.

- A comprehensive project plan must be created as the foundation on which not only the IFMIS but also all other major national ICT projects must be built.

IFMIS systems implementations of this kind are challenging and success depends on:

- Allowing sufficient time for planning and system design;
- Realistic cost/time estimates, procurement plans, disbursement schedules and technical specifications (bidding documents), including clarification of IFMIS prerequisites;
- Country-specific solutions that meet functional and technical requirements;
- Functionality of the IFMIS system that fits government strategy;
- Strong political will and support from senior management and policy makers;
- Limiting reliance on consultants and developing of appropriate in-house capacity;
- Carefully designed change management programmes;
- Sound project methodology and collation of information for system improvements;
- Small, manageable steps in implementation (incremental implementation);
- Developing the necessary infrastructure including connectivity.

The South African government is proud of the achievements of the South African Revenue Service (SARS) which has made immense strides through eFiling, the online service delivery tool that has made the Receiver the front-runner in public service delivery in the country. First-world countries are aware of the achievements made and are in constant interaction with SARS to learn about the eFiling system. A modernization agenda was adopted in 2007/08 to improve services to taxpayers, educate taxpayers and engage

traders by automating routine processes and redeploying the resources that were released to bolster both service and enforcement initiatives. This programme improves compliance by improving service to honest taxpayers and enhancing enforcement for non-compliant taxpayers. This is a clear example of Convenience and efficiency in service delivery as well as Accountability, transparency, citizen collaboration and interaction. The case is described in Box 2.

Box 2**The South African Revenue Service (SARS) eFiling System**

The environment within SARS is one that supports innovation, improvement, change and efficiency including annual improvement of the eFiling system. Surveys are conducted regularly to get feedback to enhance these systems and processes. The eFiling system is now operated, extended and managed in-house as outsourcing as a permanent solution is not ideal. SARS believes that it is important to own these systems fully and to bring the associated skills in-house.

The eFiling system is designed to be easy to use, has a secure interface and is easy to access via the internet. SARS has automated as many functions of the system as possible. Their aim is to incentivize citizens to register on eFiling rather than provide manual submissions.

- A wizard pre-populates the form, asks a few questions and provides a four-page tax return.
- No substantiating documents are required unless requested by SARS.
- A record of contacts made with SARS is kept on file electronically.
- VAT returns can be submitted five days later – on the 31st of every month.
- Assessments or re-assessments of submissions (audits) have a

quick turnaround time and payment is made quickly.

- A taxpayer can amend a return without going through an objection and can appeal online.
- eFiling can be done when convenient and where convenient.

The eFiling system has resulted in:

- Greater compliance in submitting tax returns, identifying and automatically registering new taxpayers and enforcement, resulting in increased revenue collection;
- Simplified tax returns including absolving those with low income and only one employer from submitting a return;
- Improved service and turnaround time with efficient support services for tax professionals;
- Continuous improvements to the eFiling system including extensive usability research;
- Improved communication: SARS communicates with users via SMS and email;
- Engagement with stakeholders: Many tax professionals representing large companies in South Africa sit on the advisory committee;

- Improved general perception of SARS;
- Easier client management for tax professionals – the client management process is easier as eFiling provides a client database and access to a statement of accounts.

Although the eFiling system is efficient there are some challenges and limitations:

- When the tax computation becomes complex the use of the system becomes complicated and the system cannot assist the individual leading to frustration.
- Some individuals lack the skills to complete tax returns correctly.
- Users cannot always gain access to the system when too many users are online.
- Many taxpayers still do not have access to the internet.

- Resistance to change among individual taxpayers and even tax practitioners.

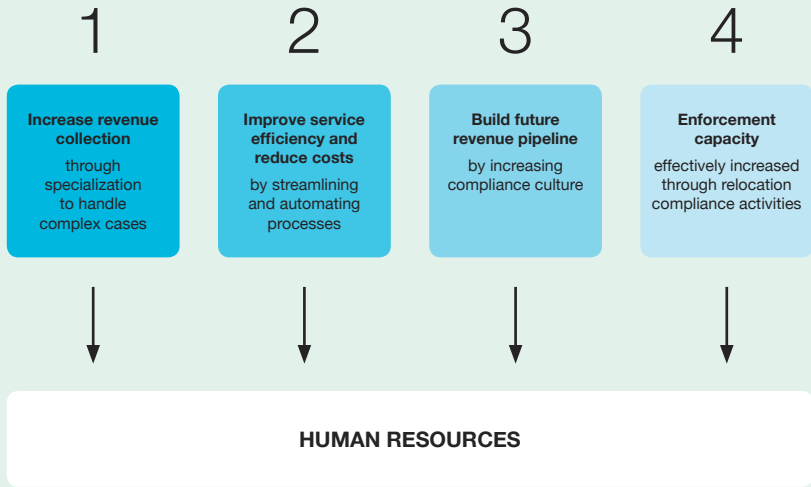
- SARS under-estimated the difficulties experienced by small businesses when using eFiling.

- Lack of adequate skills by SARS call centre operators.

- The electronic system still requires a manual process: This is seen as the biggest challenge of SARS's service offering. An example includes tax clearance certificates that are requested online but still require users to collect from the branch.

It should be noted that the introduction of SARS followed a lengthy period of cleaning up basic processes and organizational issues as a necessary step to enable the move to eFiling.

The modernization approach of SARS



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RECOMMENDATIONS

Recommendations to policy makers and regulators

RECOMMENDATION ①

Develop new organizational and legal support structures

Individual countries should develop over-arching national eGovernment plans that look at the public service of the country as a whole. By integrating existing systems, agencies can share information and communicate quickly, easily and frequently and access and participation by the citizens can be facilitated. A complete legal framework for ICT-enabled service

delivery should address aspects such as cybercrime and misuse, electronic signatures and data protection. Awareness campaigns need to drive home the message among communities that payment over electronic channels is safe and that the data they share with governments is confidential and will not be used to their detriment.

RECOMMENDATION ②

Establish national identification systems

Accurate, effective and efficient national identification systems, incorporating technology that reduces fraud and identity theft (e.g. biometric technologies that complement textual information), mean that people can be identified even without having a document at hand.

Cost, including the cost of reaching citizens in remote areas and issuing national identification cards, privacy, risk of disenfranchisement and other civil rights issues need careful attention. Technology is necessary but by no means sufficient for a successful outcome.

RECOMMENDATION ③

Address socio-economic and digital divides

The digital divide in African countries is wide. Without access to ICT-related infrastructure the poor cannot easily benefit from other eGovernment initiatives. Those in rural communities, the poor and women are least likely to have access to technology. However,

access via mobile phones can remedy the problem to some extent and connectivity can be addressed by exploiting mobile phone networks. A second strategy is building and equipping internet-enabled community information centres.

RECOMMENDATION ④

Recognize the power of social media

Public agencies should exploit social media to their advantage. Governments can use social media as a platform to enhance transparency, exchange ideas

and invite comments on government policies, handle crises, and build political opinion among the masses.

RECOMMENDATION ⑤

Exploit economies of scale

Projects should be identified that have the greatest potential impact, that can provide benefits simultaneously to more than one large group of stakeholders, and that have the potential for quickly recovering development costs. Economies of scale and scope can also be brought about by intra-public sector collaboration, leading to better cost-benefit factors in at least the following ways:

- A unified data centre with adequate

disaster recovery to host applications for all agencies

- A government-wide ICT network with high availability and adequate redundancy
- Common citizen helpdesks for trouble-shooting and general assistance
- Shared information systems (e.g. human resources management systems,

financial management systems, and inventory and asset management systems)

- Sharing the same service delivery infrastructure through citizen service centres.

Recommendations to the donor community

RECOMMENDATION 6

Support citizen-centric initiatives with social media

Learn from existing initiatives. This could be notably applicable in countries with upcoming elections, particularly where previous elections have been tainted by allegations of corruption, suppression of

information or intimidation. Ensure that legislation and institutional requirements imposed by government do not restrict adoption and use of Web 2.0 and social media technologies.

RECOMMENDATION 7

Pilot cloud computing in independent election monitoring

Funding will be needed for pilot projects that could serve as a proof of

concept for the use of cloud computing in election monitoring.

RECOMMENDATION 8

Establish technology platforms for anonymous whistle-blowing

Pilot a technology system using anonymous web communication and other technologies to completely hide the

identity of whistle blowers who expose corruption in the public sector.

RECOMMENDATION 9

Create incubation spaces for innovative technical solutions

Create incubation spaces for collaboration and innovation for applications in the public service sector. Cloud computing can assist sites in sharing data and software, hence only occasional face-to-face meetings are required.

RECOMMENDATION 10

Support capacity building programmes for open data projects

Replicate open data capacity building projects for transparency and accountability.

RECOMMENDATION 11

Empower public sector workers in rural areas

Reduce administrative burden on workers. This could be achieved through the reduction of paperwork through the development of mobile applications to replace paper-based solutions.

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www.eTransformAfrica.org

Publications for eTransform Africa include the Summary Report, Main Report which includes an overview chapter and summary chapters of the full reports, and the full reports themselves covering the following sectors and cross-cutting themes:

Sectors themes:

- Agriculture
- Climate Change Adaptation
- Education
- Financial Services
- Modernizing Government
- Health

Cross-cutting themes:

- Regional Trade and Integration
- ICT Competitiveness

For a more detailed presentation on the role of ICT in modernizing government in Africa, see the full eTransform Africa sector report:
<http://www.etransformafrica.org>.

