

transmit broadcasting services in the 11 official languages across the nine provinces of the newly formed country. The Former States Broadcasting Reorganisation Act No. 91 of 1996 provided for this.

The SABC's mandate, which is to inform, educate and entertain viewers and listeners, has been guided to date by the following principles:

- The requirement that broadcasting services, viewed collectively, develop and protect national and regional identity, culture and character
- The obligation of the SABC to take into account the needs of its audiences
- The requirement that the SABC display South African talent
- The requirement that the SABC reflect South African attitudes, opinions, ideas, values and artistic creativity
- The requirement that the SABC offer a plurality of views and a variety of news, analysis and information from a South African point of view
- The need to support the production of local content by South Africans; particularly by historically disadvantaged people
- The specific quotas set by ICASA for local television content, independent production and South African music on the SABC's public and commercial services.

#### 4.2.2 NEMISA

To fulfill the policy objectives pertaining to capacity building, the DoC established NEMISA, a media institute which specialised in teaching broadcasting production skills to the previously disadvantaged grouping and more especially to women. This provided a good feeder system of skills into the SABC and the wider broadcast industry. In preparation for the 2010 FIFA World Cup, the SABC and Sony partnered with NEMISA in the design and launch of high definition TV camera training courses to the local industry.

### 4.2.3 MDDA

In support of the need to develop content to serve the multiple needs of a developing democracy in South Africa, the Media Development and Diversity Agency (MDDA) was set up by an Act of Parliament Act No. 14 of 2002. The MDDA's primary task is to address solutions which enable HDI communities not adequately served by mainstream media to gain access to the media. This includes the development of skills capacity especially amongst the HDI grouping.

## 4.3 Commercial broadcasters

### 4.3.1 MNET, Multichoice and the Naspers Group

Naspers Ltd is a multinational media company with principal operations in pay TV, social media, mobile broadcasting and the Internet. The Electronic Media Network Ltd. was launched in 1985 as South Africa's first private subscription television service under the auspices of the Naspers Group (MNET). Multichoice was created in 1993 as a subsidiary group and expanded with its launch of South Africa's first digital satellite service in 1995 called DStv. At the time no specific formal regulatory framework existed for satellite or other forms of subscription broadcasters existed.

### 4.3.2 eTV

eTV was South Africa's first national private free to air television channel launched in October 1998. Since launch, eTV has grown and expanded operations to include a 24 hour news service and has successfully managed to achieve a financial break-even as early as 2004. eTV has expanded its media footprint into Africa and has also started to vertically integrate through the acquisition of key strategic production assets to bolster its content strategy.

### 4.3.3 TopTV

TopTV is the newest addition to the South African satellite subscription broadcasting TV market. The company commenced broadcasting in 2010 after

being granted a license by ICASA late 2007. TopTV is owned by On Digital Media and offers a wide bouquet of television channels.

#### 4.3.4 Other

There are a number of other players who also share significant influence and ownership in the broadcasting and electronic media sector. Kagiso Media is a black-owned and managed investment holding company with radio station media assets. Kagiso is also a stakeholder in commercial television productions e.g. YO-TV, 3 Talk and Soweto Community Television. Primedia is a South African media group that was established in 1994 and its listing on the Johannesburg Stock Exchange (JSE) was completed in April 1995. Primedia is broadcasting and advertising company with more than 50 brands in the sector.

African Media Entertainment Ltd (AME) is a broadcast company listed in the "Media and Entertainment" sector of the JSE Securities Exchange South Africa and owns four active broadcast media assets. CNBC Africa has operations in South Africa with substantial live production and post-production facilities producing local content, whereas the likes of the BBC and CNN have news bureau operations contributing news into the global channels.

In 2007, ICASA awarded licenses to four subscription television broadcasting licensees – Walking on Water (a dedicated Christian service), On Digital Media (TOP TV), e-Sat (a satellite service from e.tv) and Telkom Media (a broad spectrum multi-channel subscription and internet protocol TV service). Multichoice Africa was also granted a licence. A high level review indicates the difficulty some of the licencees faced to get to market and this is also indicative of a highly competitive market with strong market dominance through market share and other contributing factors. Going forward, the migration to digital television broadcasting will present further policy opportunities to address the growth and sustainability of sound, TV and multimedia services.

#### **4.4 Community Broadcasting**

The definition of community broadcasting is embodied within the statement “for the community, by the community, through the community” made in the Broadcasting White Paper of 1998. The IBA Act of 1993 allowed for the inclusion of community broadcasting as one of the three tiers of broadcasting. Subsequently 85 community radio licenses were issued between 1994 and 1998 and a few TV community broadcasters were licenced and are operating. The White Paper on broadcasting emphasised the important role community broadcasters could play in binding communities and catering for diversity. The White Paper additionally set out the provision of a distinct broadcasting mandate dealing specifically with community broadcasting issues as well as dealt with regulatory issues such as frequency, transmission fees and training programmes.

#### **4.5 Signal Distribution**

##### **4.5.1 SENTECH**

When Sentech was separated via the Sentech Act No. 63 of 1996 from the SABC, it became by default the largest signal distributor of radio and television services in the country. Given the critical nature of signal distribution operations, selected units of Sentech are classified and protected within the National Key Point (strategic installations) Act.

Sentech will provide the DVB-T2 multiplexor (MUX) services for terrestrial digital broadcasting services in South Africa. The Broadcasting Digital Migration Policy made reference to this within the ambit of the Broadcasting Act and also factored in that in terms of the ECA, broadcasters may self-provide.

It is important to recognise the advantages offered via consolidated MUX operations with properly designed and operated head end systems whereby the ability to self –provide can offset technical and cost advantages of operating multiple channels provided by different broadcasters and media sources.

#### 4.5.2 ORBICOM

Orbicom is a privately owned company and after a change in ownership is now 100% owned by Multichoice<sup>7</sup>. Its core business over the years has been in providing satellite and terrestrial signal distribution services including conditional access solutions.

### 4.6 Future policy direction

4.6.1 Multiple achievements are evident in the broadcasting industry in South Africa and where there is a clear connect to a policy driven intervention. Transformation in public service broadcasting is evident in the range of content broadcast in the official languages as well as the increased transmitter footprint.

4.6.2 Economic transformation together with market liberalisation goals has led to a viable commercial broadcasting sector in the country and where some of these broadcasters and media companies successfully used South Africa as a launch pad to expand services into Africa and elsewhere in the world.

4.6.3 However, the larger media and ICT industry faces numerous challenges pertaining to broadcasting:

- Sustained growth in local content and TV production industry
- Meeting market demand for technical and engineering skills for specific broadcast operations
- Migration to digital broadcasting and subsequent harnessing of spectrum to increase broadband footprint
- Ability to attract, retain, and develop skills at both the DoC and ICASA to address the on-going capacity challenges
- Robust governance across regulator and SOCs.

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<sup>7</sup> Multichoice Annual Report 2011

- 4.6.4 It becomes clear that with the anticipated on-going evolution of technologies, new priorities have emerged which created policy challenges both at a design and implementation level. Digital migration presents a fresh opportunity for South Africa to develop policy which directs the overall growth of the broadcasting industry whilst providing for broadband opportunities which will increase as a result of the analogue broadcasting switch off. Digital broadcasting also presents an ideal opportunity to address other gaps and barriers that have prevented the realisation of some of the important skills goals and the expansion of new content services.
- 4.6.5 Digital broadcasting also provides an opportunity for community broadcasters to gain access to highly localised regional coverage. The role of the MDDA and USAASA become paramount in addressing the dual needs of diversity and universal access coverage to serve community broadcasting effectively.
- 4.6.6 More importantly this juncture also provides an opportunity to assess the role of the regulator and to provide the requisite support and enablement required so that the regulator in fulfilling its role helps accelerate the development of the ICT industry in South Africa.

**Recommended areas for discussion**

- Local content production
- Migration to digital broadcasting
- The provision of e-Government services enabled via digital broadcasting technology systems
- Cross-media ownership within a digital broadcasting and broadband operating context
- Viability of the current public broadcasting system with specific reference to funding
- Viability of community radio and TV

**Recommended discussion questions**

1. What is the role of the regulator in a digital broadcasting and broadband domain?
2. How can South Africa harmonise the National Broadband Plan with the Broadcasting Digital Migration Plan?
3. Is there a future for mobile broadcasting in South Africa?
4. Is there still a need to address universal service and universal access in the digital broadcasting domain and how should revised targets be set?
5. What opportunities does digital broadcasting present to address regional needs, in particular to extend content for minority languages, youth, gender and children?

## **5. OVERVIEW OF THE TELECOMMUNICATIONS INDUSTRY**

### **5.1 High level overview**

- 5.1.1 The telecommunications industry post-1994 was characterised by a macro-economic environment driven by significant change which affected the role and position of the entire telecommunications sector in South Africa. With regards to technology, similar changes were taking place elsewhere in the world and saw major shifts in market consolidation and global mobility of customers. This pressured a dynamic design approach to policy and in the case for South Africa was in addition to the need to deal with changes in the new political dispensation.
- 5.1.2 In line with the needs of the time, the then Ministry for Posts, Telecommunications and Broadcasting, commenced on a new policy development in South Africa whereby a process of consultation was launched via a Green Paper on Telecommunications Policy. Contributions gathered through the Green Paper process led to the publishing of the White Paper on Telecommunications Policy in 1996.
- 5.1.3 This White Paper sought to address a number of issues such as universal service, market structure and the need for an independent regulator. Understandably, given the disparities in South Africa, a special focus was granted to the issue of universal service. An inequitable access to telecommunications infrastructure and services co-existed alongside a highly developed communications technology system posing unique challenges to South Africa and which had a direct bearing on the economy.
- 5.1.4 To address the imbalances, access for persons from historically disadvantaged communities and rural areas were identified as key focus areas. Thus two mechanisms were developed via the establishment of an Independent Regulator as well as the creation of the universal services fund (which would be managed



by Universal Services Agency) to address the imperatives of connectivity and services to these identified groups.

- 5.1.5 Market liberalisation was also a major policy focal point and many steps were taken with direct bearing on the fixed line incumbent at the time. To address the issue of market structure it was decided that Telkom would be granted a four year period of exclusivity for providing basic public switched telecommunications services. At the beginning of year four, resale would be permitted in order to encourage new and innovative use of the telecommunications infrastructure.

During that period of exclusivity, certain market segments would be open to competition, viz., the Customer Premises Equipment (CPE), private network and VANS segments. In terms of the White Paper, the resale of telecommunication facilities leased from Telkom by private and VANS operators was going to be allowed at the beginning of year four of the period of exclusivity, which was May 2001.

Furthermore, at the beginning of year six of Telkom's exclusivity period, it was envisaged that the following additional market segments would be opened up for competition: local loops, public payphones, and national long-distance and metropolitan area networks. It was also envisaged at the time that a second full network services operator would be licensed in 2001 to compete with Telkom.

Government subsequently sold a 30% stake in Telkom to Thintana, a consortium comprising US based SBC Communications and Telekom Malaysia in 1997 and Thintana sold this stake to institutional investors in 2004.

- 5.1.6 These policy objectives were incorporated into the Telecommunications Act No. 103 of 1996. The primary objective of the Act correlated to the policy goals set out in the White Paper. It saw the establishment of SATRA which served as the independent regulator in the telecommunications sector and the USA to manage

and administer the universal service fund. Amendments in the Telecommunications Act also led to Sentech being awarded with a licence to provide international telecommunications gateway services and multimedia services from 7 May 2002.

- 5.1.7 Convergence was recognised and acknowledged as a future environment in both the White Paper on Telecommunications Policy of 1996 and the White Paper on Broadcasting Policy of 1998. A significant development in the telecommunications sector therefore was when the IBA and SATRA merged together to form ICASA. This was imposed by legislation under the Independent Communications Authority of South Africa Act No. 3 of 2000. Part of the rationale for this was the increasing convergence of technology and the distorting of lines between the two sectors thereby seeking to provide seamless regulation in a converged telecommunications and broadcasting environment.
- 5.1.8 Technology changes driving this convergence within telecommunications was in the form of digital technology and the ability to 'soft configure' capacity and routing and where the technology was evolving towards full fixed-mobile convergence with implications for spectrum. On the broadcasting side and more especially globally, a driver was digital broadcasting which was still at an early stage of development. However changes were in the form of electronic media distribution capability using telecommunications infrastructure e.g. Internet Protocol Television (IPTV), Video on Demand (VOD) etc.
- 5.1.9 The aspect of technology convergence was again raised in the Green Paper on e-commerce in 2000. It stated, inter alia with the convergence on Broadcasting, Telecommunications and Information Technologies, the infrastructure capable of supporting e-commerce had become almost ubiquitous in developed countries. Convergence also found some recognition in the 2001 amendments to the Telecommunications Act No. 81 in particular through the addition of section 32C of the Act regarding multimedia services.

- 5.1.10 To effectively deal with all known and quantified aspects of convergence at the time, a layered approach to licensing via the Electronic Communications Act No.36 of 2005 was promulgated. The convergence between telecommunications and broadcasting introduced the combination of individual licenses into two main overarching licenses. These licenses are the Individual Electronic Communication Network Services License (I-ECNS) and the Individual Electronic Communication Services License (I-ECS).
- 5.1.11 An event in August 2008 which set a precedent in the converged telecoms environment came about when Altech Autopage Cellular challenged the right to self provide. Altech served a High Court order on ICASA objecting to the process of VANS licence conversion and selection of intended network services licencees and the Pretoria High Court awarded the decision in Altech's favour. ICASA was then obliged to allow Altech to convert its VANS licence to an I-ECNS licence.
- 5.1.12 Effectively, South Africa has some 500 licencees who in terms of the ECA may provide infrastructure and services. Areas pertaining to broadband and spectrum were addressed in 2010 with the publishing of the Cabinet approved Broadband Policy for South Africa as well as the National Radio Frequency Spectrum Policy. The objective of the spectrum policy was to address spectrum management, provide guidelines for spectrum usage as well as principles for spectrum fees.

## **5.2 Telecommunications - SOCs and Agencies**

- 5.2.1 The DoC has been primarily responsible for guiding the development of the telecommunications sector and ensuring that it meets the industry needs of South Africa. This included setting targets for universal service and universal access for voice and data (including broadband services) for telecommunications operators and service providers.

5.2.2 With the imminent implementation of digital broadcasting services and the need for broadband infrastructure development, the DoC is well cognisant of industry's needs and has accordingly developed a Broadband Plan to address the new environment. With technology convergence becoming applicable across the value chain of telco and media companies, Sentech which at first was mandated to provide signal distribution for the SABC together with other market services has also been awarded various telco based licences and provisions over the years. Like for most of its global peer group around the world, this is the trajectory that was followed for signal distribution companies.

5.2.3 However, the DoC's span of responsibilities for telecommunications is confined to organisations reporting into the DoC. Information on agencies reporting into the DoC together with other relevant SOCS falling within other government reporting structures follows and dealing with large scale telecommunications infrastructure and services follow.

5.2.3.1 USAASA: With the publishing of the Electronic Communications Act No. 36 of 2005, the Universal Service Agency (USA) was renamed the Universal Service and Access Agency of South Africa (USAASA). A driver for the change was the inclusion of universal access as a priority for addressing integration of all socio economic groups across South Africa.

The ECA provides that money in this fund be exclusively used for assistance to 'needy persons' and the financing or construction of electronic communications networks in under-serviced areas thereby catering for the attainment of universal service and access targets especially in rural or underserved areas. Additionally funding is also available to public schools and further education institutions to procure telecommunications products and services.

5.2.3.2 Sentech was created by statute and took over through issue of a loan, the SABC's signal distribution assets, becoming the largest (and at that time, the only) signal distribution operator in South Africa. Sentech was separated out of the SABC in 1996 via the publishing of the Sentech Act No.63 of 1996. Sentech's influence in the telecommunications sector came to the fore in 2002 when it was awarded two additional licenses for the provision of international voice-based telecommunications (carrier of carriers licence) and media services (multimedia licence).

These strategic licenses were enabled by the Telecommunications Amendment Act No.64 of 2001. With the publishing of the ECA in 2005, these licenses were subsequently converted into I-ECNS and I-ECS licences. Sentech has also since been awarded with a multimedia licence.

5.2.3.3 Outside of the DoC and reporting into the DPE, Broadband Infraco was licensed following legislative intervention in 2006 by the DPE to specifically operate a backbone (broadband) network and to provide network services to operators at wholesale prices and on "open access" (non-discriminatory) terms. Broadband Infraco is prohibited from dealing directly with retailers or the public. Together with Sentech, Broadband Infraco will also play a major role in accelerating broadband in South Africa. However both entities may not be optimally structured in their present format to deliver efficiently and optimise investment spend into this infrastructure heavy project.

5.2.3.4 Outside of the DoC and reporting into the DPSA, SITA has a mandate to consolidate and coordinate the government's information technology resources in order to achieve cost savings

through scale, increase delivery capabilities and enhance interoperability. With the envisaged growth of IT featuring as a key toolset in organisations towards the new millennium, the need at the time became apparent in the South African government context to establish a central authority charged with the coordination of all governmental IT services and infrastructure. This gave rise to the State Information Technology Agency (SITA) Act No.88 of 1998 being published and SITA being subsequently established in the following year.

SITA's primary objective is to leverage IT as a strategic resource for government, managing the IT procurement and delivery process to ensure that the government gets value for money, and uses IT to support the delivery of e-Government services to citizens.

### **5.3 Telecommunications – Commercial Companies**

5.3.1 Telkom: Telkom, as the former parastatal national operator, has the most extensive fixed line telecommunications network and provides connectivity, voice, data and broadband products and services to a business and consumer customer base. Following on the approval of the Telecommunications Amendment Act in 2001, Telkom prepared for an Initial Public Offering (IPO). Telkom eventually listed on the JSE and New York Stock Exchange (NYSE in 2003) and government currently retains a 39, 8% share. Telkom divested its 50% stake in Vodacom in 2008. Through a managed liberalisation process, Telkom's exclusivity came to an end in 2002.

Whilst Telkom still dominates the fixed line voice telephony market because of its extensive copper access network infrastructure across South Africa, fixed line growth has been in decline over the recent years<sup>8</sup>. Also since market liberalisation, which was initiated by the Telecommunications Act No.103 of 1996,

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<sup>8</sup> Telkom annual report 2011

Telkom continues to face increasing competition from mobile operators and competitors offering convergence based business solutions. As the national incumbent, Telkom can still play a major role to increase the access of broadband services to a wider reach of consumer and business clients across South Africa.

5.3.2 Neotel: After a significant delay as per original planned date, Neotel received a licence in 2005 and after further delays in getting to market, only launched consumer based residential products and services in 2008. Neotel entered the market as the second national network operator with a significant part of its asset base derived from Transtel assets. Neotel now covers 2.5 million households. Its current products and service offerings for voice and data services are designed to meet market demand. Neotel has a retail footprint and have plans to expand channel to market capacity. It also offers products to the corporate business segment as well where over 90% of its revenues are generated from the business customer base. Neotel also operates the SEACOM submarine fibre cable landing station.

### 5.3.3 Mobile Network Operators (MNO) and Mobile Virtual Network Operators (MVNOs)

There are four mobile cellular network operators in South Africa, Vodacom, MTN, Cell C and 8ta. Vodacom and MTN launched GSM based mobile services in 1994. Cell C was awarded a licence in 2001 and VANS operators now operate under the ambit of the ECNS layered licensing framework endorsed by the ECA and ICASA. The MNOs initially started with prepaid and postpaid voice based services and over the years have expanded services to provide data services to the consumer and business segments for both postpaid and prepaid customers.

South Africa has only one MVNO in the market. Virgin Mobile South Africa was the first MVNO to enter the market in partnership with Cell C in 2006. Following

a change in ownership structure and a rebranding exercise, Cell C launched the new MVNO entity Red Bull Mobile service in 2011.

#### 5.3.4 Other

The advent of market liberalisation has seen the rapid expansion of the Internet Service Providers (ISPs) in South Africa. The Internet Service Providers Association (ISPA) currently has 152 listed members ranging from large/medium to small players<sup>9</sup>. This influx can be attributed to the converged licensing regime implemented with the publishing of the ECA in 2005. This has caused the licensing of hundreds of companies offering Internet Services. Coupled to this is the expansion of infrastructure with the arrival of four new international submarine fibre-optic cables (e.g. SEACOM, EASSy, WACS). A consequence of this has been a reduction of international bandwidth cost and the expansion of the competition base.

#### 5.3.5 Summary observations – commercial companies

Whilst the voice market has become saturated, there is still headroom for data growth in South Africa. The prepaid market in South Africa is very price savvy and there is a tendency to carry multiple SIMs to enjoy pricing benefit depending on prepaid promotions and offers by the MNOs. An ICT Africa household survey indicated a SIM-card penetration rate of close to 65% of the population, with at least 10% of respondents indicating they had multiple SIM cards. Recently, there has been a rapid growth in smartphone usage and penetration has risen from 17% (2011) to 23.7% (2012)<sup>10</sup>. Thus it is not straightforward to correlate SIM cards issued with mobile penetration on a linear basis. Additionally SIM cards are also in use in machine to machine telemetry applications. It is also reported that 85% of black owned businesses in South Africa depend on mobile telephony<sup>11</sup>. Whilst it is reported that the mobile subscriber base in South Africa

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<sup>9</sup> ISPA member list. Available at <http://ispa.org.za>

<sup>10</sup> Steve Esselaar, et al. (2010). South African ICT Sector Performance Review 2009/2010

<sup>11</sup> Paul Budde Communication Ltd 2012; South Africa key statistics – telecom market and regulatory overviews



is saturated, this tends to be a metro centric assessment and rural and under-serviced communities are not always factored in.

## 5.4 Future policy direction

5.4.1 Policies developed have significantly shaped the telecommunications industry through the advancement of key objectives such as universal access, infrastructure development and market liberalisation. Market liberalisation has received the most focus in terms of investment and market growth with many positive and some negative connotations.

The regulatory framework also enabled the growth of alternative service providers such as Dark Fibre Africa (DFA), Fibreco, Broadband Infraco, and even the launch of Telkom's mobile arm, 8ta. The number of broadband capacity providers has increased in number thereby promising a future potential of a vast array of fixed and wireless broadband services. International connectivity which also had a positive influence on future capacity supply and forecasted price decline<sup>12</sup> include the subsea cable connectivity via EASSy, SEACOM and WACS.

5.4.2 Despite significant success in the sector there is room for improvement to increase teledensity, overall access, affordability and in the main uptake of ICT services. A before and after assessment demonstrates many aspects of visible change since the introduction of mobile operators, Neotel and the entry of ECNS players, however price<sup>13</sup> and accessibility of services continues to dominate user needs. Fixed line density is 8% and Telkom continues to report negative fixed line growth.<sup>14</sup>

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<sup>12</sup> The end of Telkom's monopoly on international submarine fibre-optic cables also led to a decrease in price

<sup>13</sup> Telecommunications prices in South Africa, South African Foundation Occasional Paper No1/2005

<sup>14</sup> Telkom annual report 2011

- 5.4.3 One of the most significant challenges going forward is the development of infrastructure in previously disadvantaged and rural areas. The access, usage and uptake can only be addressed if citizens across all socio economic demographics have infrastructure and affordable services in their area.
- 5.4.4 Historically Disadvantaged Individuals (HDI) remain under represented in the industry as both suppliers and users of ICT services. This is due to targets of universal access not being fully implemented. The establishment of the Universal Service Fund (USF) and USAASA as the manager thereof was aimed at addressing this problem but had not yet yielded wide spread success.
- 5.4.5 The operating mandates of Broadband Infraco and Sentech together with the obligations placed on the incumbent also appear to be a multi-pronged approach to implementing a national broadband system. This intersection and near conflict in roles does not appear to be adequately identified or addressed in the current policy document. Within new policy development, attention therefore needs to be given to the role of Broadband Infraco, Sentech, SITA, the USAASA and other SOCs and Telkom obligations regarding the objectives set out by government on universal access, infrastructure development, funding and the development of relevant skills.
- 5.4.6 Within telcos but more specifically dealing with radio, a positive achievement has been the launch of the SumbandilaSat satellite designed and built in South Africa to showcase local capabilities. Coupled with this the South African National Space Agency also recently launched a National Space Strategy. The ISSA played an integral role in the development of skills needed for the advancement of South Africa's space program. The success of the project showed the capabilities of South Africa to produce advanced technology at a significantly cheaper cost than comparing nations. However, going forward a more streamlined approach should be taken to develop ICT skills in South Africa as this will have a direct bearing on the current and forecasted skills shortage.

- 5.4.7 The ICT Empowerment Charter has led to many progressive transformation based changes but transformation objectives as per the seven pillars defined within the Preferential Procurement Framework Policy Act No. 5 of 2000 still need to be addressed in the ICT industry in South Africa.
- 5.4.8 The price of telecommunications products and services is still a barrier for many South African consumers and there is room to also improve on communications to consumers and users of the benefits of ICT.
- 5.4.9 Overall, the developments in the telecommunications sector have mostly led to a positive market impact in South Africa, generating investment, innovation, employment and selected improvements in service delivery.
- 5.4.10 Broadband is going to be the next major area of investment requiring public-private partnering, inter-governmental partnering and addressing consolidation of government mandate and assets. A National Broadband network which is built to transform the economy of South Africa brought about by socio-economic change is undoubtedly one of the largest telecommunications based projects to be undertaken in the country. An effectively built and operated national broadband network will serve as the central nervous system in the country connecting schools, hospitals and various economic corridors in the country. Such a network will in addition to other media communication systems provide a vital communication component between government and citizens.

In keeping therefore, policy makers should not just approach this area from a market structure model perspective but view its role more critically. A national broadband network is equivalent to a strategic national asset delivering medium to long term economic benefit whilst providing vital connectivity functionality and

services in the country and should therefore be accorded priority focus in the development of policy.<sup>15</sup>

#### Recommended areas for discussion

- Investment in infrastructure to promote universal access and service
- Cost of services and the impact on affordability
- Supply of skills and the role of training institutions in creating appropriately qualified skills for the sector
- Employment in the sector
- Effective market structure for delivery of broadband
- Transformation in the ICT industry – (i) policy measures in growing sector, (ii) factoring in ICT Charter and (iii) preferential procurement

#### Recommended discussion questions

- How can policy/ regulation drive infrastructure investment by the private sector?
- How do you drive investment in under-serviced areas?
- Technology neutral last mile technologies viz., LLU is still an issue, does it remain a relevant issue going forward into the broadband era?
- What other parts of the telco value chain can be 'opened up' to allow for SME and SMME partnering e.g. sales and distribution of air time?
- what is the relevance of open access networks for the South African market?

<sup>15</sup> In the case of Australia, the direct contribution of the internet to the Australian economy was worth approx \$50 billion or 3.6% of Australia's Gross Domestic Product (GDP) in 2010. The Australian government took direct leadership responsibility in the National Broadband Network (NBN) project on all aspects ranging from funding through to skills development of the NBN future workforce.

## 6. OVERVIEW OF POSTAL SERVICES INDUSTRY

### 6.1 High level overview

- 6.1.1 Postal services is defined as the receiving, collecting, dispatching, conveying and delivering of mail or postal items, as well as performing all services incidental to these primary tasks. In South Africa the structure of the postal market is divided into reserved and unreserved postal services, with only one company being permitted to operate in the restricted area of reserved postal services. This concept of an exclusive area for postal providers is built on the basis of universal service obligations, a responsibility which must be provided by the SAPO. Certain postal items up to a certain weight are currently in the exclusive domain of SAPO, a company wholly owned by the South African government.
- 6.1.2 The creation of a universal service obligation came about through the 1998 White paper on Postal Policy when it was stated that a license will be issued by the then Minister for Posts, Telecommunications and Broadcasting to the monopoly provider (SAPO) in terms of which a Universal Service Obligation would be imposed. SAPO was established as a monopoly provider for post less than 1kg and this coincided with the creation of the Postal Regulator under the Postal Services Act No. 124 of 1998.
- 6.1.3 Whilst reserved postal services are exclusively supplied by SAPO, unreserved postal services are also supplied by privately owned courier companies. The unreserved postal services area is harshly competitive for SAPO. In attempts to modernise its operations, products and services, SAPO is increasingly exploring other market avenues to diversify its solutions and service offerings. In the General Agreement on Trade in Services (GATS) sectoral classification, postal and courier services is listed as subsectors of communication services. Interestingly this sector also includes telecommunications and audiovisual services.

6.1.4 The SAPO established its own Skills Development Institution to address the skills deficit referred to in the White Paper on Postal Policy of 1998 as well as to deal with ongoing skills development requirements. This is a unique area whereby South African tertiary institutions do not cater for this sector. Whilst this is the situation in most countries, there are selected countries like Germany and Malaysia where studies in the postal sector are offered. Challenges to readily attract and develop the right cadre of skills impede both the efficiency and transformation objectives of SAPO.

## **6.2 Postal Services SOCs**

### **6.2.1 South African Post Office (SAPO)**

SAPO was established in accordance with the Post Office Act (1958) as a government business enterprise to provide postal and related services to the South African public. SAPO was granted an exclusive mandate to conduct postal services in South Africa in accordance with the Postal Services Act (1998). The Act makes provision for the regulation of postal services and operational functions of the company including, its universal service obligations.

The Postal Services Act 1998 emanated from the White Paper Policy of 1998 and resulted in the inclusion of the HDI group particularly in under-serviced areas. Hence a requirement to promote affordable provision of a wide range of postal services in the interest of economic inclusion for rural areas and small towns where post offices are not sustainable surfaced as a priority. The SAPO is viewed as an entry point into the public access network and therefore forms a hub around which many other ICT activities are usually clustered in under-serviced areas.

Thus branches of the post offices will continue to be part of the infrastructure programme under the Expanded Public Works Principles in several communities each year for the next ten years.

In 1994, South Africa was readmitted to the Universal Postal Union (UPU). To comply with the standards of the UPU, accessibility to a post office had to be in the form of either one post office for every 10 000 persons or one post office within a 5km radius.

Several initiatives launched by SAPO to improve universal access and service have resulted in bringing the following ICT services closer to the people;

- launching the Postbank visa card for elderly clients, reducing the necessity to carry cash
- opening 72 new post offices, of which 52 are in rural under serviced areas
- concluding agreements with seven municipalities for the collection of municipal rates and taxes
- partnering with provincial governments in the renewal of motor vehicle licences
- partnering with the South African Social Security Agency in the disbursement of social-security grants to develop the socio-economic development of the country

### 6.2.2 Postbank

As defined in the Postal Services Act, the main objective of the Postbank was to promote a savings culture. In 2004, Postbank launched the Mzansi account initiative with the effect that by December 2008 they had more than six million account holders. Postbank also contributed greatly to the national Savings Drive by launching its Visa branded Postbank card, and sold retail bonds to the value of R1,4 billion.

The South African Postbank Act Limited No 9 was promulgated in December 2010. The signing of the Postbank Act established the Postbank as a subsidiary of the SAPO. During 2010 the Postbank celebrated its centenary as a savings bank with legislation promulgated that will enable the organisation to change from a deposit-taking institution to a fully-fledged bank.

Overall, good progress has been made towards the implementation of the Postbank Act. The Postbank has applied for and received VISA membership and is on the verge of finalising the development of lending, borrowing and investment policies of the Postbank as required by section 26(2) of the Act. This will allow the Postbank to offer relevant services through an extended and enhanced product portfolio.

The envisaged role of the Postbank in prioritising the banking needs of the unbanked majority, thus facilitating their inclusion into the economic mainstream will go beyond just promoting a culture of savings and this has led to it being accorded the status of a flagship project for the DoC.

### **6.3 Courier services and unregulated parties**

#### **6.3.1 Courier Services**

Postal services has traditionally, been the domain of state-owned entities that have an exclusivity on basic mail services, whilst courier services most often used for parcel delivery or expedited mail services, are often supplied by privately owned companies. During the last two decades the postal sector has undergone dramatic changes globally and the difference between postal and courier services has become unclear. Suppliers in the unreserved postal services category include the likes of international courier companies e.g. FedEx, DHL and TNT.

South Africa as a signatory to the UPU resolutions, has agreed to the development of a regulatory framework that provides for Extra Territorial Offices of Exchange (ETOE) within the South African market. The UPU defines ETOEs as an “office of exchange operated by or in connection with a designated operator outside its national territory, and is established for commercial purposes to draw business in markets on the territory of another member country<sup>16</sup>”

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<sup>16</sup> ICASA Annual report 2010/2011



## 6.4 Future policy direction

- 6.4.1 The challenge is that the SAPO is becoming redundant in its current form and this is evident in declining revenues and the increase in new sources of competition for example the advent of emails and SMS has led to reduction in mail volumes with a direct impact on revenues. This has further lowered SAPO's profitability for reinvestment in under serviced areas and to roll out infrastructure expansion projects.
- 6.4.2 As part of overall postal sector reform and national development policy framework, guidelines need to be introduced to identify opportunities that the Postbank can exploit and utilise. Furthermore a policy framework needs to be introduced to fill in the gap of managing risk and sustainability of Postbank.
- 6.4.3 A further area which can benefit from policy direction is continued transformation through preferential procurement and skills development. With properly designed and funded training programs, job creation can be addressed through SMME supplier partnering initiatives.
- 6.4.4 Ongoing market liberalisation, technology and product substitution will continue to pose strong threats to the Post Office and PostBank. This has led to policy gaps and will provide an opportunity to be addressed via an integrated ICT policy. By way of example with a forecasted increase in e-commerce there is still a need to courier goods from the seller to the buyer. SAPO can start to not only provide meaningful services in this aspect but can also start to provide actual e-commerce based solutions itself.
- 6.4.5 Policy effectiveness with respect to the unregulated space pertaining to courier services should be reviewed. ICASA is responsible for the issuing of licences to operators in the unreserved sector and has indicated that a regulatory framework will be developed to define courier services. This area requires regulatory attention as currently international mailing houses accept mail on behalf of clients and identify couriers to convey the parcels where after the mail is sent to SAPO

to physically deliver to destined entities in South Africa. Sending parties therefore do not incur or pay for the actual costs attached to the postal delivery service using this method.

#### **Recommended areas for discussion**

- Mobile banking and e-payments
- Modernisation of the Post Office – what are relevant services in urban and rural areas
- Opportunities to develop and launch new e-commerce based products and services
- Capacity building for postal services and modern day PostBank

#### **Recommended discussion questions**

- How would you define relevant postal services in South Africa?
- How would you define successful postal reform in South Africa?
- What role can the Postbank play to integrate all economic growing into the banked sector?
- What are the obstacles and barriers preventing us from achieving successful reform of SAPO and the Postbank?
- What policy needs to be put into place to regulate extra territorial offices of exchange operating in South Africa?

## 7. e-COMMERCE

### 7.1 Historical policy overview

7.1.1 Global development towards a knowledge based economy comprising of information societies has drastically changed the landscape upon which traditional products and services were delivered. Super connectivity and hyper digitisation allow for the almost instantaneous crossing of territorial borders to interact and transact in cyber space. This has challenged the traditional understanding of the eco-system within which government, the private sector and citizens function. e-Commerce has been a game changer in the knowledge economy and has create a global marketplace without conventional rules. This coupled with the fact that e-commerce transactions can span multiple legal jurisdictions across different countries creates the need for policy and regulatory intervention.

7.1.2 In recent years, the availability and mass adoption of m-commerce using mobile channels jumpstarted the knowledge society maturity phase where applications designed to create highly relevant solutions to all economic sectors saw mass adoption and fast growth. MPESA, launched in Kenya in 2007 offering a suite of m-commerce based products and services is the most cited example in Africa and even globally where this product managed to gain wide spread take up and reach in under banked and unbanked economic sectors across Kenya. Approximately 30% of Kenya's GDP now transacts via the MPESA platform<sup>17</sup>. Mobile payment is the third-largest growth and profitability avenue and is set to contribute significantly to revenue coming from the nontraditional mobile services segment in emerging markets<sup>18</sup>

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<sup>17</sup> Annual results : Safaricom 2010-2011

<sup>18</sup> Predicts 2012: Emerging Markets are Changing the World of IT – Gartner 29 November 2011

- 7.1.3 Mobile commerce extends to more than selling products via a mobile channel. Like for most e-commerce transactions, the user decision to use the functionality is usually preceded by an awareness process influencing and informing the potential user's decision to use electronic commerce as a trusted purchase channel. A Gartner user survey in 10 markets showed that security concerns are a top barrier to mobile payment adoption<sup>19</sup>.
- 7.1.4 There is an increasing intersect between policy making and regulatory requirements in financial services and telco based solutions and where software driven transactions can use multiple protocols to exchange data beyond that of web connectivity.

## **7.2 Overview of ICT landscape in SA**

- 7.2.1 The number of South Africans actively using e-commerce based services is increasing and online retail spending in South Africa reached R2bn in 2010<sup>20</sup>. Growth in e-commerce in South Africa is driven by increased usage on the Business to Consumer (B2C) as well as Business to Business (B2B) transactions. For B2B and in keeping with global trends many companies are adopting online procurement systems as a means to lower operating costs and work more productively. Online banking has wide scale adoption amongst the client base of the big four banks in South Africa and e-commerce is one of the largest sales channels for the sale of airline tickets.
- 7.2.2 SITA plays a central role to the advancement of Government to Citizen (G2C) e-commerce solutions for government. The South African Revenue Services (SARS) provides tax payers access to a free suite of software applications linked to eFiling which allow taxpayers, practitioners and businesses to complete their returns offline and then submit the documents to SARS via the eFiling system.

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<sup>19</sup> Market Insight: A framework for mobile commerce – Gartner market analysis 12 August 2011

<sup>20</sup> World Wide Worx finding cited in Economist Intelligence Growth of e-commerce – 01 February 2012

Payments to SARS may also be made online. Many municipalities also offer online payment methods for traffic fines and other payments.

7.2.3 The DoC is responsible for e-commerce policy formulation. The Electronic Communication Transactions Act No. 25 of 2002 was published as the legislative enabler for the policy put forth in the Green Paper on e-commerce. This included the promotion of universal access primarily in underserved areas, the promotion of e-government services and electronic communications and transactions with public and private bodies, institutions and citizens, the encouragement of investment and innovation in respect of electronic transactions and compliance with internationally benchmarked standards.

7.2.4 The ECT also provided for the development of a national e-strategy to address issues such as universal access, the maximisation of benefits of electronic transactions to historically disadvantaged persons or communities, the development of human resources in the Information Technology sector relevant to the objects of the Act as well as the evaluation of the adequacy of any existing processes, programmes and infrastructure providing for the utilisation of electronic transactions by SMMEs. The national e-strategy was not developed. The DoC however in response, through the Presidential National Commission (PNC) developed an Information Society and Development Plan (ISAD) with the objective of addressing challenges in co-ordination and integration.

7.2.5 There was also significant attention given to the security and privacy around the use of e-commerce in the Green Paper as well as the ECT. The area of security regarding electronic communications changed in 2003 when the Electronic Communications Security (Pty) Ltd Act no. 68 provided for the establishment of a company that will provide electronic communications security products and services to organs of state. This gave rise to the establishment of COMSEC<sup>21</sup> in

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<sup>21</sup> this is the former reference to Electronic Communications Security (Pty) Ltd) ie a company owned by the Government of South Africa through its National Intelligence Agency (NIA)

2003 to ensure that critical electronic communications of the South African government is protected and secured.

- 7.2.6 More recently, focus has shifted to creating policy in order to enable secure transaction environments for all South Africans to participate in electronic communications and transactions. The Cybersecurity Policy of South Africa was approved by Cabinet in 2012 with the objective of establishing an environment that will ensure confidence and trust in the secure use of ICTs.
- 7.2.7 The objectives of complying with internationally benchmarked standards have also been addressed when the Minister of Communications formally recognised the Internet Service Provider Association (ISPA) as an Industry Representative Body in terms of section 71 of the ECT Act.
- 7.2.8 A Broadband Policy for South Africa was published in 2010 as an effort to address the affordability, accessibility and universal access to broadband infrastructure to citizens, business, communities and government. The objective of increasing the access, uptake and usage of broadband is to promote economic development and growth as well as being an enabler for further social benefits. An increase in the uptake of broadband across all economic segments of the population group will create a pull for a growing demand for high quality G2C services.
- 7.2.9 Consumer protection issues have also been addressed through the creation of the Consumer Protection Act (CPA) which came into effect in April 2011. The CPA however does not provide for issues covered in section 43, 44 and 46 of the ECT Act. This pertains to the sale, hire or exchange of goods via electronic transactions and cooling off period as well as performance by the supplier as contained in the ECT Act. Protection of personal data and critical customer databases is becoming increasingly important. Attention thus needs to be given to incorporating these issues into the CPA so that consumers are protected.

### **7.3 Future policy direction**

- 7.3.1 A significant challenge facing government is the creation of a comprehensive national ICT policy to effectively deal with the various intersecting areas of e-commerce. During the last decade the convergence shift in technological development has seen previously distinct lines between the application and deliveries of such technologies erode. In order for policy to be an enabler of future growth in the ICT sector through adoption of e-commerce and m-commerce intersecting areas need to be dealt via a unified policy framework approach between financial services and consumer related matters.
- 7.3.2 Provision for the implementation of a national e-strategy has been made in the ECT. In response, the Presidential National Commission (PNC) developed an Information Society and Development Plan (ISAD) with the objective of addressing challenges in coordination and integration. This plan should be reviewed in terms of 'fit for purpose' to increase G2C and G2B e-commerce and m-commerce based solutions. A clear owner for the plan as well as implementation across government should also be assessed.
- 7.3.3 Moving forward, focus still need to be directed towards the objectives originally put forth in the Green Paper on e-commerce. In particular universal access, development of relevant infrastructure and development of a coherent e-government services strategy require more attention.
- 7.3.4 As more users adopt the method of online transactions, the risk of cybercrime increases. This therefore places an increasingly important focus on the need to address cybersecurity for both government data as well as personal data in the commercial domain.

**Recommended areas for discussion**

- Extending e-commerce to m-commerce channels, discuss which can provide highly relevant applications for South Africans?
- Universal access to e-commerce services
- Infrastructure needed for e-commerce services
- Development of coherent national government e-strategy
- Cybercrime and preventative measures to address protection of data and systems in use by government and the private sector

**Recommended discussion questions**

- Which government sectors should prioritise the use of electronic channels (including m-commerce) e.g. agriculture, health etc to send and receive information as well as conduct transactions in a secure G2C and G2B environment?
- What role can SAPO and the Postbank play to increase the uptake and adoption of e-commerce?
- What are the main issues which need to be considered in the formulation of policy and legal framework which is not yet addressed?



## **8. DIGITISING GOVERNMENT**

### **8.1 Historical Policy overview**

8.1.1 The integration of secure information technology systems into society coupled with their benefits such as accessibility, flexibility and simplicity has long been a priority in South Africa, and elsewhere in the world, with regards to services delivery. This use of secure information communications technologies to offer citizens and businesses the opportunity to interact and conduct business with government not only improves efficiency and effectiveness of government's critical service delivery areas but also streamlines processes within government itself.

### **8.2 Overview of ICT landscape in SA**

8.2.1 The DoC published a Green Paper on e-commerce in South Africa in 2000 which set out a framework for the development of e-Government initiatives in South Africa. A number of factors influenced the need for the development of such a framework.

8.2.2 The implementation of such services featured as a global trend at the time with governments such as the USA, UK and Australia developing policy frameworks for the digitisation of their government services. Key focus areas included the establishment of a political champion for driving e-Government services, the creation of a policy framework and significant investment in government IT infrastructure.

8.2.3 The Green Paper, in parallel with global trends, put forth a range of new strategies and frameworks needed across government in order to transform government into an e-Government. Significant to the success of e-Government was, and still is, the ability of developing a knowledge-based workplace where public servants are ICT literate and adopt modern systems. Coupled with this it was identified that governments' ability to equip employees with the necessary

skills and understanding through change management processes is crucial to the adoption of such systems.

8.2.4 Similarly, it also became apparent that the implementation of such systems would rely on the upgrading of governments information technology infrastructure and the development of a coherent IT strategy for government. This included the creation of data standards for interoperability as well as frameworks (both legal and strategic) for the security of information.

8.2.5 The objectives and framework set out in the Green Paper on e-commerce informed the legislative development of the Electronic Communications and Transactions Act of 2002. Selective aspects of the Green Paper were included in the ECT, with regards to the digitisation of government, such as the call for a national e-strategy under which the development of e-government services would serve as a priority as well as a chapter on the use of data and documents in electronic transactions over e-government services.

8.2.6 The implementation of a structured and coherent strategy to the implementation of e-government services is not visible despite the fact that a framework was set out in the Green Paper and the provision was made for the development of a national e-strategy. The main driver behind the implementation of e-government services has been the DPSA. Various initiatives have been undertaken by the DPSA through SITA and the creation of the Government Information Technology Officers Council (GITOC) to improve operations and IT spend across the three tiers of government.

#### 8.2.7 SITA:

In 1998 the State Information Technology Agency Act was published which saw the establishment of SITA (Pty) Ltd. in 1999. The objective of this was to create an agent for providing information technology, information systems and related services in a maintained information systems security environment on behalf of the state. Specific provision was also made in the Act for the agency to promote the

effective utilisation of information technology and to enhance the efficiency at all levels of public service. However, from outset, the role of SITA in the digitisation of government has been unclear. Moreover SITA appears to be geared towards operations–centric goals.

#### 8.2.8 GITOC

A significant development was also the establishment of the Government Information Technology Officers Council (GITOC) which serves a central role for the implementation of ICT initiatives in government. A number of initiatives have been established by the council such as the National Integrated Social Information System (NISIS) and an enterprise architecture development framework however a lack in funding has imposed challenges regarding implementation.

8.2.9 There is still a large demand for a structured government approach to exploiting the opportunities that e-government offers. Singular efforts to deploy initiatives will not be sufficient but requires a unified programme to drive critical mass adoption across government. This will in turn lead to improved operational efficiencies in government and where government will be more accessible to citizens.

8.2.10 Such a structured government approach has been a priority for the PNC-ISAD. This plan was developed as part of the requirements of the ECT Act for the establishment of a national e-strategy. This plan provides a comprehensive framework for addressing the challenges facing government in the form digitisation. Specific focus is given to the development of ICT infrastructure and universal access as well as coordination and integration of e-Government services.

### **8.3 Future policy direction**

- 8.3.1 The Government Digitisation initiative has, over the past decade faced a number of challenges. The absence of a coherent IT strategy for government has led to the widespread use of incompatible and non-integrated platforms and applications. This also leads to a silo mentality inhibiting the ability of government to develop effective system architecture for government interoperability. These challenges result in the unnecessary duplication of ICT functions and systems draining limited available resources.
- 8.3.2 Some of these challenges were addressed at the 2011 Government CIO Summit organised by GITOC. Six priority focus areas were identified in support of government's strategic outcomes including citizen access, integrated service delivery, ICT governance and leadership, ICT cost management, ICT performance and cross-government business and ICT capability. With regards to the delivery of integrated services, emphasis was placed on "affordable access to high integrity citizen data to both government and citizens in support of more citizen-centric services". Many of the above mentioned challenges were represented in the Green Paper on e-Commerce for South Africa in 2000 and still remain relevant to this day.
- 8.3.3 An issue which has received little strategic and policy attention has been the deployment of a universal broadband infrastructure with specific reference to structures within government as well as the subsequent infrastructure providing citizens with access to government. Provision regarding these issues was made in the Broadband Policy for South Africa published in 2010 with regards to the role clarification of government. Listed under the goals for involvement of National government is the connection of government and its entities through Broadband services at all levels for enabling e-government services as well as increasing uptake and usage of broadband services. An implementation plan will need to set out a pragmatic approach to achieving these goals.

- 8.3.4 Attention also needs to be given to the eReadiness of South Africa. An eBarometer Report was issued by the DoC where focus is directed on the e-readiness of South Africa. An e-Ready society can be defined as one that is capable of leveraging the inherent value of ICTs for its development. There are still areas of significant development required to achieve such a state. These areas include some of the above mentioned challenges such as infrastructure and accessibility.
- 8.3.5 The use of data analytics is helping agencies in the US Federal government with a wide range of improvement efforts, such as reducing improper payments, identifying intelligent budget cuts, providing better care, and mitigating vulnerabilities that could lead to cyber attacks and other threats<sup>22</sup>. As systems offer more capability for governments to function more effectively, a parallel requirement to technology advancements is that of skills development. Many countries other than the US in developed and developing economies view skilling of civil servants as a high priority.
- 8.3.6 Direction also needs to be created regarding the role of SITA in overcoming the challenges mentioned. As the agency in charge of the state's IT infrastructure and service delivery, its role will be significant in enabling the digitisation of government services. This is echoed in the ISAD plan where reference is made to the need for a partnership approach between the Departments of Communications and Education, SITA and service providers to address the challenges faced.

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<sup>22</sup> Deloitte: Tech Trends 2011 – a Federal Government perspective on convergence in IT

**Recommended areas for discussion**

- Digitising government as a key priority to accelerate government service delivery
- Co-ordination, planning and execution of the e-government strategy
- Funding required to realise such e-government infrastructures
- Relationship between government and the private sector as a critical success factor

**Recommended discussion questions**

- What needs to be done to rationalise, integrate other government authorities and harmonise SITA, the DoC and GITOC goals and activities?
- Who within government needs to take ownership of this initiative?
- Is government properly organized to respond to e-Government?

## 9. INVESTMENTS

### 9.1 Historical Policy overview

9.1.1 Policy directed towards investments in the ICT industry and more especially policy in support of a National integrated policy must factor in the full value chain activities across a converging operating environment for broadcasting, telecommunications, the postal services, e-commerce and Information Technology. Investments in the ICT industry will typically come in the form of:

- Government Funding and Government Spending
- Local Investments
- Foreign Direct Investment (FDI), domestic funding
- Public – private partnerships

9.1.2 Thusfar, with the exception of a managed liberalisation process for the telecommunications sector which led to the partial sale of Telkom, together with other market liberalisation policy driven objectives in the sector, the DoC has not yet developed specific policy for investments in the ICT industry.

9.1.3 With large infrastructure projects on the horizon as well as the need to create employment, the DoC now needs to give the investment aspect of an integrated National ICT policy attention.

### 9.2 Overview of ICT landscape in SA

9.2.1 The White Paper on Telecommunications stated that South Africa needed a strong telecommunications equipment supply industry in order to respond to the development needs of the country and to position South Africa appropriately for the 21st century. It was felt that a vibrant globally competitive local telecommunications industry will attract more investments, generate employment and generate greater economic activity. It also stated that Telkom should be granted a period of exclusivity to provide basic public switched telecommunications services where the goal was to allow for the building out of

the basic network as quickly and as extensively as possible. Following the period of exclusivity, various market segments will be opened to varying degrees of competition which in turn would drive up additional investments and resultant overall telco market growth.

- 9.2.2 One of the objectives in the Telecommunication Act of 1996 was to encourage investment and innovation in the telecommunications industry and give preference to HDI for of equity ownership of up to 30% or a higher equity ownership percentage as may be prescribed. With respect to broadcasting, the sale of the SABC radio stations created the first formation of the commercial broadcasting landscape in South Africa.
- 9.2.3 The Broadcasting Digital Migration Policy of 2008 as amended in February 2012 also allows for government to subsidise set top boxes to economically qualifying household where the funds would be managed through the Universal Service and Access Fund. This would amount to some 5m households being eligible for subsidies and where this will be a key factor driving job creation particularly in the under-services areas.
- 9.2.4 In recent years, the South African government has invested almost R5 billion for the provision of robust ICT infrastructure, partly in preparation for the 2010 FIFA Soccer World Cup. South Africa is the 20th largest consumer of information technology (IT) products and services in the world<sup>23</sup>.
- 9.2.5 Government continues to both fund and invest in the ICT sector with significant sums of capital each year. Government's allocation of R2.5 billion for the manufacturing of STBs is a major progression towards reducing the Digital Divide. Additionally, the SABC and Sentech have received funding especially

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<sup>23</sup> Swiss Business Hub South Africa (2012). South Africa Major Business Sectors 2012