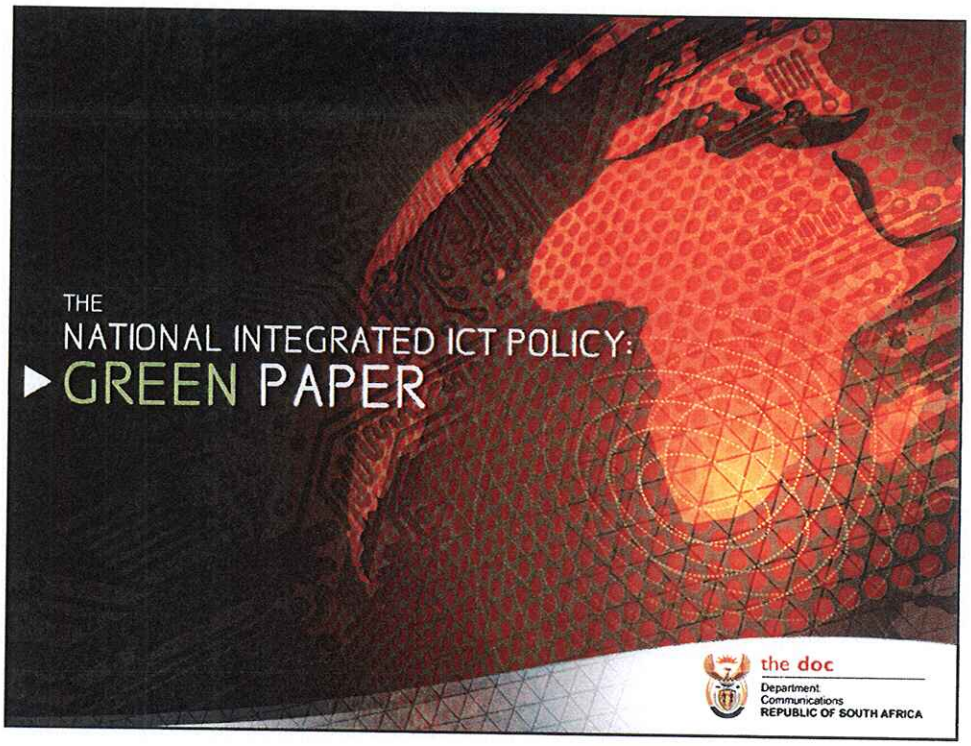
140219
pcomms



WHY THE ICT POLICY REVIEW?

- Separate frameworks have guided the sector since 1994. The White Papers on Broadcasting, Telecommunications & Postal sectors and the Green Paper on e-commerce, have underpinned the policy and legislative developments since democracy.
- Much has changed in recent years, especially in the ICT sector due to the rapid expansion and fast-paced developments in technology, and the emergence of new media as a result of the Internet.
- Changing ICT environment:
  - Technology convergence is of particular interest to policy makers and regulators as it changes the nature of services, allowing an operator who was licensed under one category to be able to do things that would have required different category licences in the past;
  - Convergence of Internet and Media; and
  - Convergence in Policy and Regulation.

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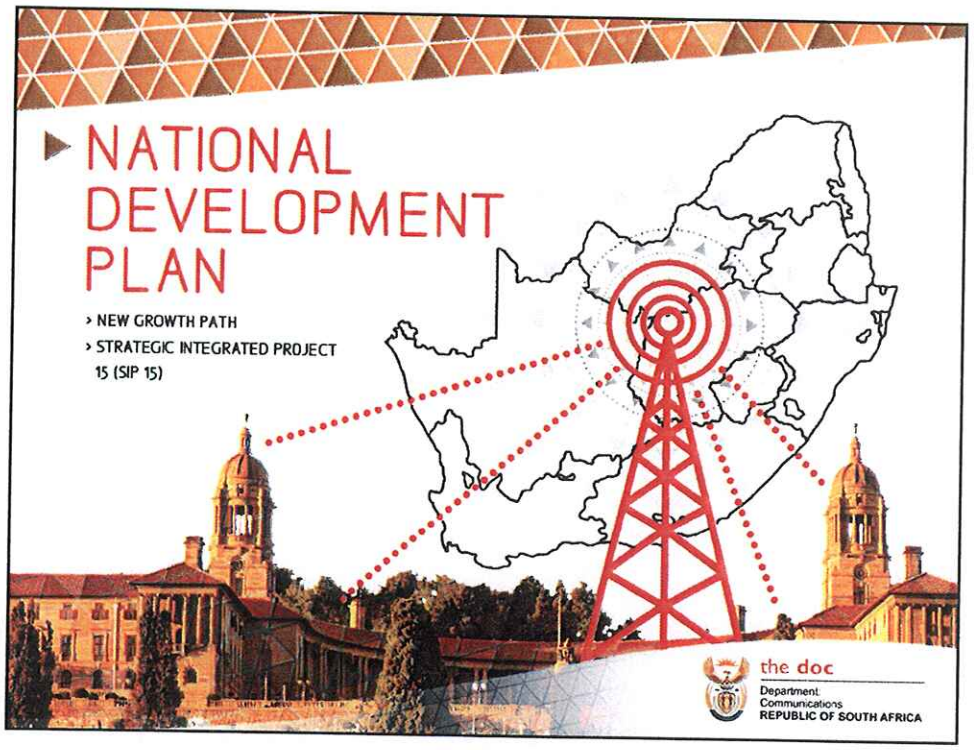
NATIONAL DEVELOPMENT PLAN
› NEW GROWTH PATH
› STRATEGIC INTEGRATED PROJECT 15 (SIP 15)
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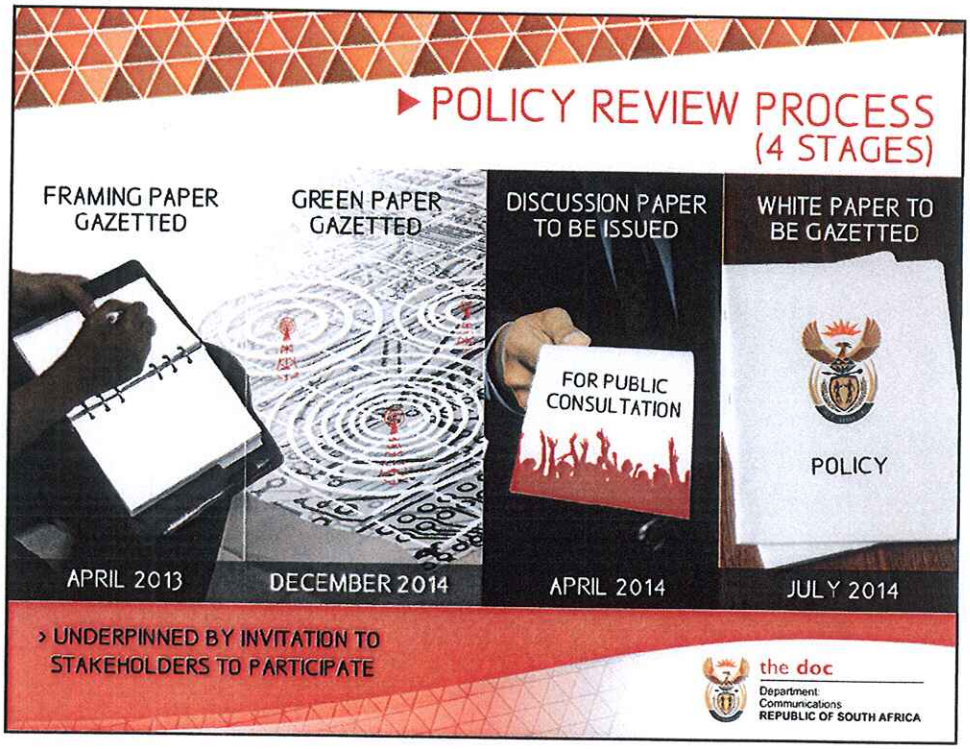
POLICY REVIEW PROCESS (4 STAGES)
FRAMING PAPER GAZETTED
APRIL 2013
GREEN PAPER GAZETTED
DECEMBER 2014
DISCUSSION PAPER TO BE ISSUED
FOR PUBLIC CONSULTATION
APRIL 2014
WHITE PAPER TO BE GAZETTED
POLICY
JULY 2014
› UNDERPINNED BY INVITATION TO STAKEHOLDERS TO PARTICIPATE
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TELECOMMUNICATIONS AT A GLANCE

TELECOMMUNICATIONS GROWTH AND OUTLOOK

2011 CENSUS SURVEY

STATS SOUTH AFRICA

89%	75%	68%	35%	15%
OF 14.5 MILLION HOUSEHOLDS HAVE ACCESS TO MOBILE PHONES	OF HOUSEHOLDS HAVE ACCESS TO TELEVISION	HAVE ACCESS TO RADIO	OF HOUSEHOLDS HAVE ACCESS TO THE INTERNET	HAVE ACCESS TO A LANDLINE PHONE

- Fixed and fixed wireless connection growth rate of -2.4%
- Mobile connections growth which we expect to be +6.2%
- Telecoms sector revenue grew from R8.2bn in 1993 to R157bn in 2012 and is expected to grow to R187bn in 2016

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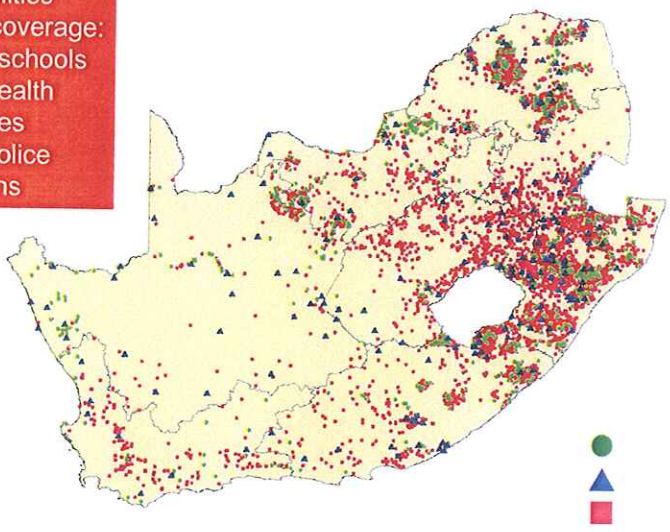
Facilities outside coverage of the main service providers

Total facilities outside coverage:
- 6785 schools
- 793 health facilities
- 192 police stations



Source: BMI-T, 2012

White Paper policy implementation- Challenges

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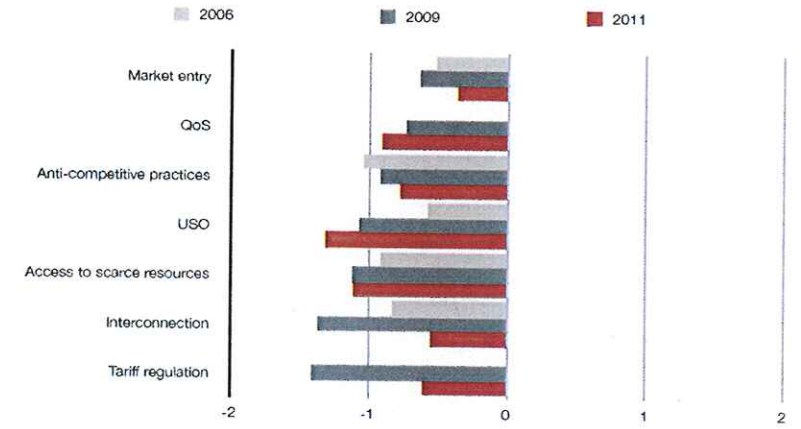
Ineffectual regulation



Source: RIA TRE assessment data 2011-12

High Costs to Communicate

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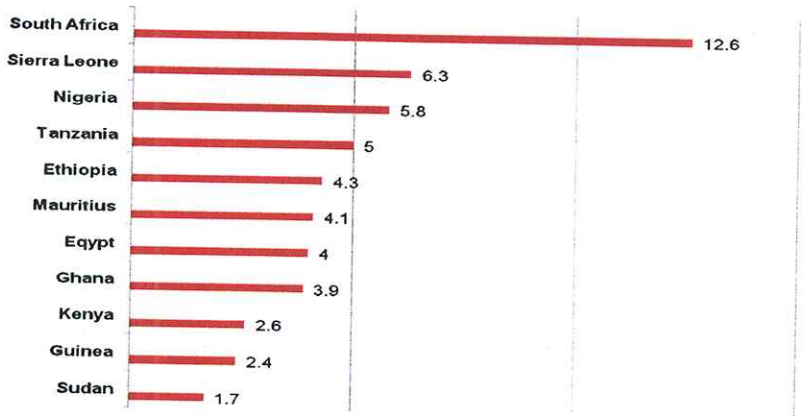
South African prepaid mobile prices in relation to the 10 cheapest countries in Africa, based on OECD lower-user basket of 2010: Prices 10 x Higher



SOURCE: RIA Pricing Transparency Index: Prepaid Mobile data

Telecommunications White Paper policy implementation - Challenges

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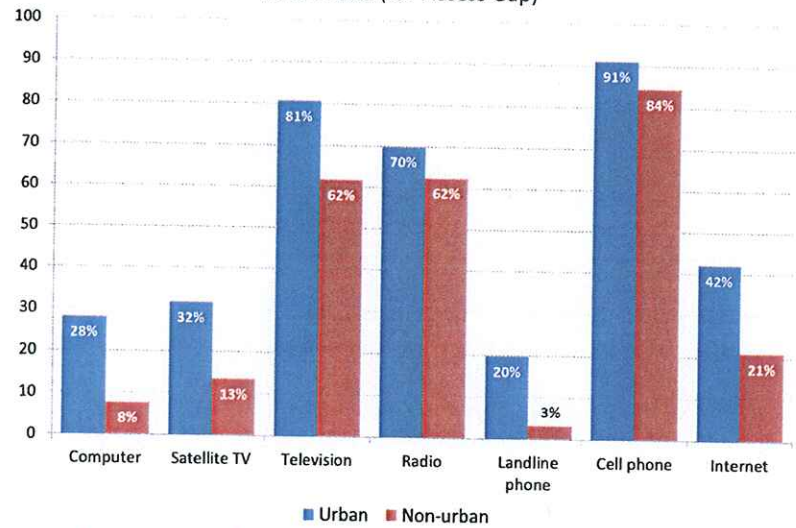
Census 2011: Percentage of households in urban or non-urban areas that have access (ICT Access Gap)



Telecommunications: Policy issues to address

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BROADCASTING AT A GLANCE

Broadcasting policy implementation - Successes

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Legislative Framework
- IB Act, 1993
- Broadcasting Act, 1999
- ICASA Act, 2000
- EC Act, 2005

Growth and Outlook
- Television: R2,8bn to R16,2bn ('99 – 2012)
- Radio from R916m to R5.2bn
- Internet:R832m in 2012 from 0 in 1999
- Subscription revenue over R1bn to R15.2bn

New Services
- 1 FTA licensed
- 2 Satellite FTA
- 1 Terrestrial subscription
- 2 Satellite subscription
- Television channels grew from 7 to 180 (1999 to 2012)
- Radio grew from 34 to 215 (1999 to 2012)

Infrastructure Expansion
- Analogue terrestrial tv grew from 60% to 92% from (1998 to 2012)
- 90% of population have access to radio services
- 207 Community radio stations licensed
- 6 community television services
- Digital infrastructure in place

South African Content
- 55% local content quota for SABC
- 45% local content quota for e-tv
- Local production and music contributes R3.5 bn to GDP
- over 25 175 full time equivalent (FTE) jobs (NFVF Study

13

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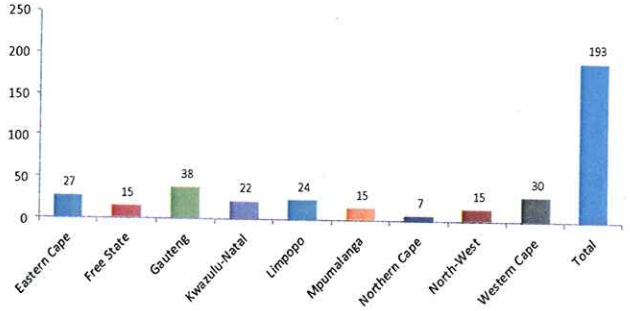
Number of community radio stations

- A total of 193 community radio stations licensed by ICASA as Class Community Sound Broadcasting Service ("CCSBS") Licensees throughout the South Africa.

Class community sound broadcasting service licensees per licence area



Number of Community TV broadcasters

No:	TV Station	Year started	Province
1	1 KZN TV	2011	Kwazulu-Natal
2	Cape Community Television -WC	2006	Western Cape
3	Soweto Community Television GP	2007	Gauteng
4	Trinity Broadcasting Network	2002	Eastern Cape
5	Tshwane Community Television- GP	2011	Gauteng
6	BAY TV EC	2011	Eastern Cape

Current Status of Broadcasting

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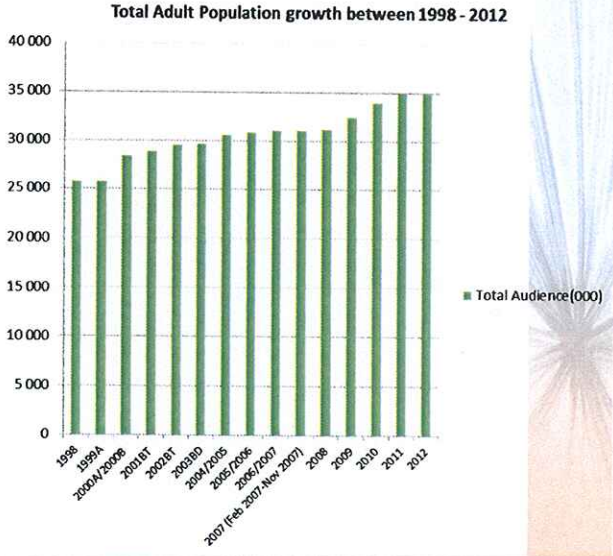
Total adult population growth 1998 - 2012

- 1998 to 2012 – from SAARF AMPS data
- Adult population (15y+) grew from 25.7m in 1998 to nearly 35m in 2012 (a compound annual growth rate of 2.18%)



Current Status of Broadcasting

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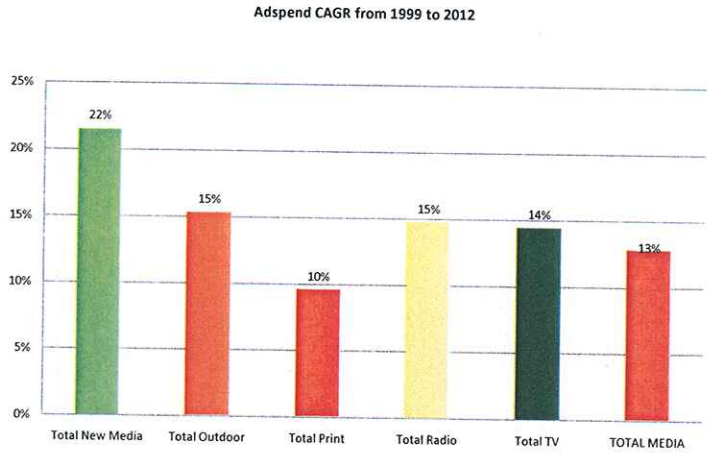
Adspend Overview



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Broadcasting Policy Issues

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Legal and regulatory framework

- Define broadcasting activities in the internet age
  - ✓ Convergence
  - ✓ New content services
- Regulatory parity and internet parity
- Licensing and spectrum
- Competition
  - ✓ market concentration
  - ✓ access to premium content
  - ✓ bundling across platforms
  - ✓ bottlenecks and gateway
  - ✓ access to services

SABC

- Define the SABC mandate in the digital era
- Developmental programming and priorities
  - ✓ children's programmes
  - ✓ educational programmes
  - ✓ health programmes
  - ✓ sports developmental & national unity
- e-Government services
- Events of national interest
- Funding of the SABC
- Governance
- Structure of the SABC

Other cross-cutting issues

- Supporting SA content
  - ✓ Similar obligations for broadcasters
- Increasing diversity
  - ✓ language services
  - ✓ provincial reflection
- Sustaining community broadcasting
- Content standards and protection of children
- Access to signal distribution
- Enforcement of IP rights

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POSTAL SERVICES AT A GLANCE

Postal services – policy implementation successes

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Legislative Framework
- Postal Services Act, 1998
  - Reserved market
  - Unreserved market
- ECTA, 2002
- Preferred Authentication Service Provider for Government (authenticate e-signatures for government & issue certificates)

Growth and Outlook
- Postal and Courier services valued at more than R9.1 bn in 2010
- SAPO revenues constitute R5.5 bn in the same period
- 300 registered courier service companies
- Postbank has 6 million customers

Infrastructure
- SAPO retail network of 2433 access points
  - 1763 in rural areas
  - 670 in urban areas
- 10 million addresses to households
- 4 million mail boxes
  - 2 million mail boxes for businesses

Global Integration
- Member of the Council of Administration of UPU
- Member of the Postal Operational Council of UPU
- Chair of the Strategy Committee of the UPU
- Chair of same structure at Africa & SADC levels
- Co-Chair of Standards Committee of the UPU

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Postal Services Policy Issues

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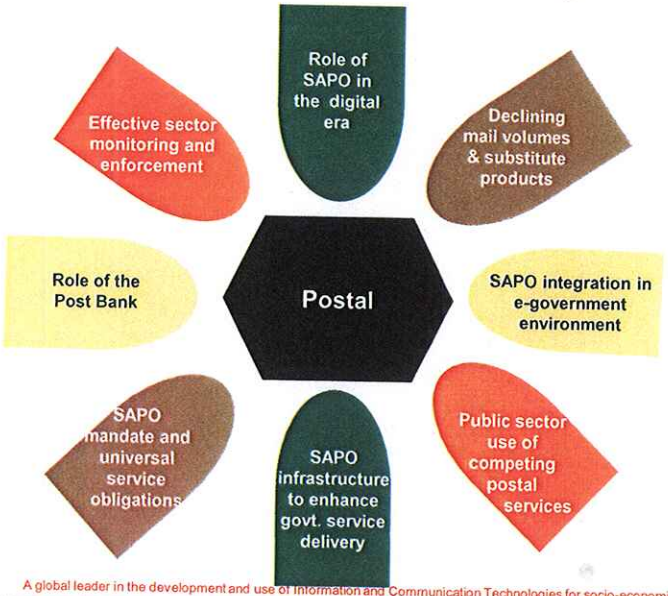

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E-SERVICES & CYBERSECURITY AT A GLANCE

E-services, cybersecurity & cybercrime

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Legislative Framework
- Public Service Act, 1994
- ECT Act, 2002
- ISAD Plan, 2007
- White Paper on Transforming Public Service Delivery
- Minimum Information Security Standards
- Electronic Government Policy Framework
- 2004 White Paper on e-Education

E-Government Initiatives
- e-Filing
- Smart Card ID
- e-Hanis
- e-Natis
- NAAIRS
- IP Online Project (CIPC)
- Batho Pele Gateway
- DHA track and trace

State of e-Commerce
- SA e-commerce market worth R4.2 bn in 2013
- 1.5 million active online shoppers. Figure expected to double by 2016
- Internet users in SA to increase to 17 million by 2016
- Of these 8.5 million will be e-commerce ready

Global Integration
- 2003 Chair of Inter-sessional Working Group on WSIS
- Elected as Member of WG on Internet Governance
- Member of IMPACT
- DIRCO- Chair of Crime Prevention & Criminal Justice (UN Office on Drugs & Crime)

Networked Readiness Index Map

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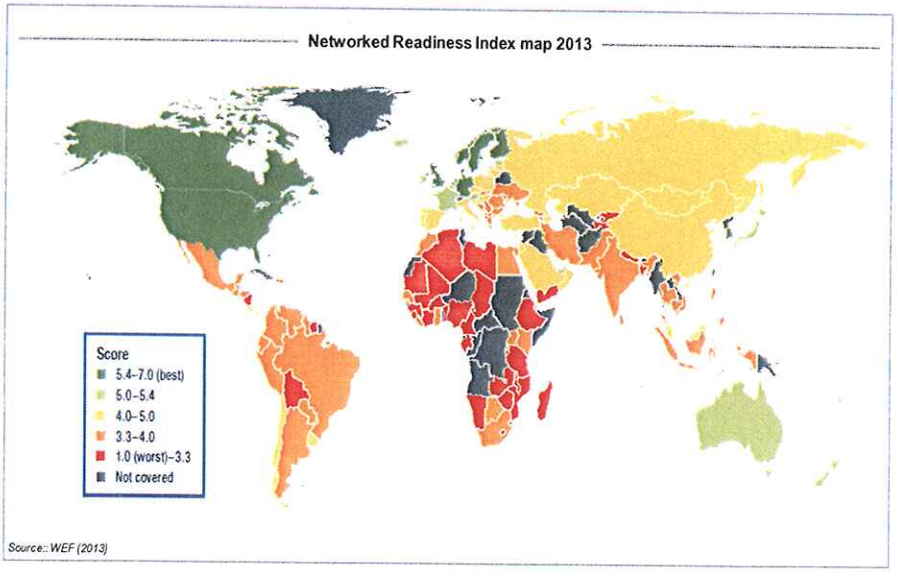

Source:: WEF (2013)

South Africa's ranking in Network Readiness

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Global Rank	Country	Political & Regulatory	Business & Innovation
18	Malaysia	24	16
33	**South Africa**	**21**	**55**
94	Nigeria	89	101
98	Kenya	87	106
108	Tanzania	76	128

Global Rank	Country	Economic Impact	Social Impact
27	**Malaysia**	**29**	**25**
71	Kenya	47	84
79	Nigeria	65	88
92	**South Africa**	**51**	**112**
127	Tanzania	136	119

Global Rank	Country	Individual usage	Business usage	Government usage
29	Malaysia	46	26	7
72	**South Africa**	**81**	**33**	**102**
84	Kenya	115	53	44
108	Nigeria	11	68	113
120	Tanzania	127	102	99

Global Rank	Country	Infrastructure & Digital Content	Affordability	Skills
57	Malaysia	73	50	43
95	**South Africa**	**59**	**104**	**102**
110	Kenya	110	105	93
123	Nigeria	115	120	123
17	Tanzania	124	130	132

AFRICA E-GOVERNMENT RANKINGS

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Rank	Country	World e-Gov. ranking 2012	World e-Gov. ranking 2010
1.	Seychelles	84	104
2.	Mauritius	93	77
3.	South Africa	101	97
4.	Tunisia	103	66
5.	Egypt	107	86
6.	Cape Verde	118	108
7.	Kenya	119	124
8.	Morocco	120	126
9.	Botswana	121	117
10.	Namibia	123	125

E-Commerce, Cybersecurity & cybercrime

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Overview for e-commerce, cybercrime and cybersecurity – Policy and legal framework

	E-commerce	Cybersecurity	Cybercrime
Definition	Typology of e-commerce & business models	Security strategy covering all aspects of ICT – from cyberwarfare to protection of critical infrastructure	Crime done in the area of ICT / Crime facilitated by ICT
Current trends	Increasing relevance for national and regional markets	Significant number of recently approved national cybersecurity strategies all over the globe	Global efforts to fight cybercrime
International benchmarks	Strong global growth footprint	Multiple benchmarks – body of issues covered always very similar	AU, Budapest Convention, Commonwealth, etc
Status in South Africa	Limited in scope and scale	Responsibility shifted from DoC to security agencies (in line with best practice)	Strong recognition of conventions, ratification outstanding
South Africa Gap Assessment	Limited market volume Legislative gaps	Entire framework – policy and enforcement to be established Some legislation in place	High number of cybercrime incidents Legislation and prosecution to be adressed
Recommendation for the road ahead	Harmonise legal framework Active facilitation (e.g. Create skills and awareness, focus on rural)	Create policy Establish cybersecurity governance	Become active driver for AU or alternative Install prosecution capabilities

E-Commerce, Cybersecurity & cybercrime

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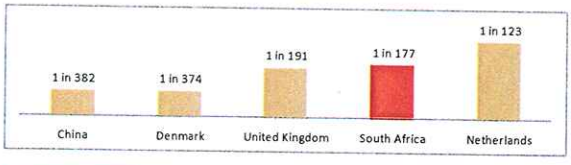
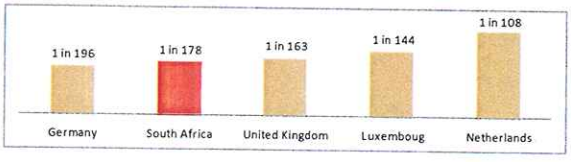
Cybersecurity Threats in South Africa and Worldwide



Top 5 Malware Destinations Worldwide



Attacks by Size of Targeted Organization

For malware and phishing, South Africa is listed in the top five country list, clearly indicating that South Africa is highly exposed to cybersecurity threats.

Comment

- Cybercrime is real in South Africa. With regard to geographic distribution of malware, spam and phishing South Africa ranks on a global scale:
  - **Phishing:** RSA is ranked No. 2 , only Netherland has a higher rate of phishing attacks.
  - **Malware:** RSA is ranked No. 4.
  - **Spam:** RSA is not in the top five country list.
- 31% of all attacks targeted small businesses, as SMMEs less prepared to handle cyber risks.
- New cybercrime trend attacking mobile devices and to social networks.

Cybercrime and Cybersecurity - Current Issues regarding Cybercrime in South Africa

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Broad issues regarding cybercrime that need to be addressed in South Africa.

CIA related offences	▪ Offenses that affect the **confidentiality, integrity** and **availability** of computer systems and computer data, including illegal access, illegal interception, data & system interference, misuse of devices.	▪ Cybercrime attackers adapt to the change in internet usage & constantly invent new types of attacks: ▪ Cybercrime goes **mobile** ▪ Cybercrime goes **social networks**
"Old" forms of offences	▪ Offences committed by means of computer systems, e.g., computer-related forgery and fraud, child pornography & offences related to infringements of copyright & related commercial rights.	▪ As of today there is no dedicated cybercrime policy in place in South Africa ▪ Offense are dealt with in several acts, harmonization required?
Issues of prosecution	▪ Prosecution bodies (**who**) and capabilities required (**how**) ▪ Substantial training for public prosecutors and policy force is necessary	▪ South African law is currently flexible enough to fight cybercrime ▪ Exchange of information between government and private sector is problematic, especially in
International framework	▪ **Budapest Convention is one of the main and has been the first international agreement that addresses cybercrime in an international treaty**	▪ **Harmonization** of national laws and the establishment of **international cooperation** against cybercrime

E-Commerce, Cybersecurity & cybercrime

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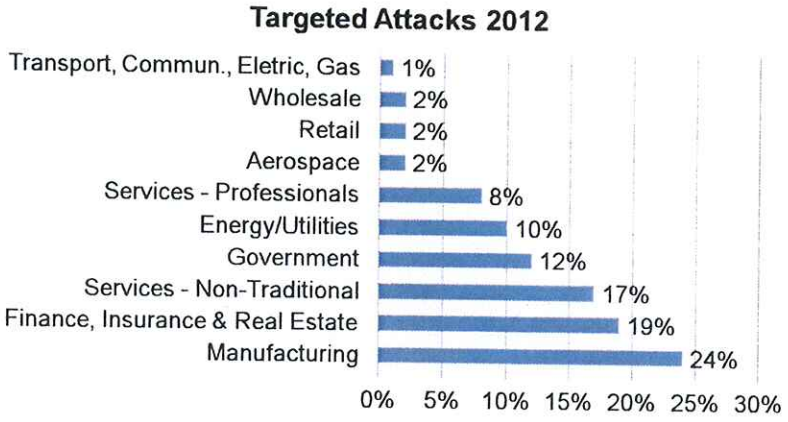
Top 10 Attacked Industries in South Africa



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Recommendations and Way Ahead – Cybercrime

Aligning old forms of cybercrime with cybercrime legislation

- A stronger emphasis on fighting cybercrime requires an **aligned and harmonised legal approach** covering the different cybercrime elements and offenses.
- A coherent and comprehensive legislation would make the **subject of cybercrime more prominent and transparent** and thus the legal framework a **more powerful tool to fight** cybercrime.

Prosecution and Digital Evidence

- **Establishment and governance of enforcement and prosecution capabilities** is critical to fight cybercrime.
- When illegal content is detected, there has to be an "incident response procedure".

Cybercrime model for international and regional cooperation

- **Cybercrime is international** in nature. National borders do not stop cyber attacks.
- Combating cybercrime requires **effective international cooperation of law enforcement agencies**, based on a wide harmonization of law and the establishment of mutual assistance.

Cybercrime awareness and special training needs

- **Investigation authorities need training in digital forensic**, and the trained and skilled staff should be concentrated in Centre of Cybercrime Competence within the authority.
- Judges and attorneys need to get a good understanding of the internet.
- **Special awareness programs** should be set up the general public

Cooperation with ISPs

- Collection of digital evidence and the disposal of illegal / harmful content requires the **involvement of private companies** (ie. ISPs, telco providers etc.)
- **Mutual assistance** and an **active cooperation** between government (enforcement agencies) and the ISPs is required.

ICT skills

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- The knowledge economy or society requires profoundly new ways of thinking, working and living. These include building new capacities for the entire nation.
- South Africa's position in terms of global e-readiness is of great concern. According to the World Economic Forum (WEF), South Africa dropped 25 places from 47th in 2007 to 72nd in 2012 and is now placed 70th in 2013. Low uptake and usage of ICTs by government and individuals are some of the reasons for the sharp decline.
- Some of the issues emanating from the research undertaken indicates that a fully integrated and coordinated framework that aligns to the priorities of the NDP and the national skills plan, is required . In addition, an aggregated data analysis of South Africa's needs and skills gaps in relation to new global technological trends is critical.
- There is a need to develop and enhance skills base to support e-government at all levels.
- Need to develop IT skills in educational and training environments, and to use ICTs to solve educational challenges.
- There is a need to develop ICT engineering and programming skills aligned to the ICT R&D Roadmap.

Institutional Arrangements

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- The NDP highlights the need to develop specialised institutional capacity to ensure that policy keeps up with the evolution of the sector and that regulation is effective.
- The roles and responsibilities of different players are defined in current policy and legislation and are intertwined, requiring the different institutions to act in collaboration to achieve specific policy objectives outlined in the various legislation governing the sector.
- A review of the institutional roles and responsibilities of the different players involved in policy and regulatory settings indicate a lack of common purpose and interaction to the degree required to drive policy. The lack of interaction is at times mechanical. The question now is how all institutions dealing with public policy can better cooperate to deliver on the key policy and legislative mandates.
- There is a need to strengthen policy, regulatory and market oversight (Legislature, the Executive, Regulator).

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Thank You

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