COUNTRY: SOUTH AFRICA

SCORE: 57.33 | RANK: 15/24

South Africa's comprehensive privacy law is gradually being implemented. The country also has some useful cybercrime and electronic commerce laws in place.

However, some limited Internet filtering and censorship still occurs, which may inhibit development of the digital economy, and South Africa has only very basic copyright laws, which are not aligned with current international best practice. In Mid-2015, the Government of South Africa started a process to amend the copyright law, but the process has faced considerable delays. South Africa has not yet signed the WIPO Copyright Treaty.

Another potential barrier in South Africa is the existence of a complex system of domestic preferences in government procurement opportunities.

South Africa has low levels of broadband penetration, but they have been improving in recent years. The government released ambitious targets in December 2013 for the South Africa Connect plan.

South Africa's ranking in the 2018 Scorecard fell slightly — from 14th to 15th — based largely on the rebalancing of the Scorecard methodology.

# SOUTH AFRICA	RESPONSE	EXPLANATORY TEXT
DATA PRIVACY (SCORE: 8.5/12.5 | RANK: 12/24)		
1. Is a data protection law or regulation in place?	✔	South Africa's Protection of Personal Information Act was enacted in August 2013. Significant parts of the legislation are not yet in force. As of June 2017, a commencement date has not been announced. Once the commencement date has been confirmed, organizations have one year to comply.
2. What is the scope and coverage of the data protection law or regulation?	Comprehensive	The legislation is comprehensive and covers all sectors.
3. Is a data protection authority in place?	✔	The Information Regulator <www.justice.gov.za/inforeg> is the national privacy regulator of South Africa. It is an independent body with a national jurisdiction. The regulator began operations in early 2017.
4. What is the nature of the data protection authority?	Collegial body	The Information Regulator <www.justice.gov.za/inforeg> consists of a chairperson and four additional members.
5. Is the data protection authority enforcing the data protection law or regulation in an effective and transparent manner?	◑	The Information Regulator <www.justice.gov.za/inforeg> has strong enforcement powers available. The regulator only began full operation in early 2017, and it is too early to fully assess the effectiveness of the authority.
6. Is the data protection law or regulation compatible with globally recognized frameworks that facilitate international data transfers?	EU framework	The Protection of Personal Information Act 2013 was based on, and is compatible, with the EU Data Protection Directive.
7. Are data controllers free from registration requirements?	◑	There are no general registration or notification requirements in South Africa. However, Section 57 of the Protection of Personal Information Act 2013 requires organizations to seek prior authorization for the processing or transfer of certain very specific categories of data, and this will act as a de facto registration requirement. The categories are: • Some uses of identifiers for data linkage; • Some processing of information related to criminal behavior; • Credit reporting; and • Some limited transfer of data to third countries related to sensitive information or information on children. The categories are very specific and Section 57 will require close attention by organizations operating in South Africa.

# SOUTH AFRICA	RESPONSE	EXPLANATORY TEXT
8. Are there cross-border data transfer requirements in place?	Detailed requirements	Generally, organizations may not transfer personal information to other countries unless the recipient is subject to a law, binding corporate rules or a binding agreement with requirements that are substantially similar to the rules in South Africa. A flexible range of alternative mechanism can be applied on a case-by-case basis, including consent.
9. Are cross-border data transfers free from arbitrary, unjustifiable, or disproportionate restrictions, such as national or sector-specific data or server localization requirements?	✔	The cross-border data transfer requirements in South Africa are transparent, flexible, and closely aligned with international best practice.
10. Is there a personal data breach notification law or regulation?	✔	The Protection of Personal Information Act 2013 contains a data breach notification requirement.
11. Are personal data breach notification requirements transparent, risk-based, and not overly prescriptive?	✔	The Protection of Personal Information Act 2013 contains a requirement to notify the Information Regulator <www.justice.gov.za/inforeg> and the data subject involved as soon as reasonably possible when a security breach is believed to have occurred. The notification of the data subject is not required when the identity of the data subject cannot be established.
12. Is an independent private right of action available for breaches of data privacy?	✔	Section 14 of the South African Constitution of 1996/Bill of Rights provides a limited right to privacy. There have been a small number of cases under this provision, mainly involving government action such as searches by law enforcement agencies.
SECURITY (SCORE: 4/12.5 | RANK: 19/24)		
1. Is there a national cybersecurity strategy in place?	✔	The National Cybersecurity Policy Framework (NCPF) <www.gov.za/documents/national-cybersecurity-policy-framework-4-dec-2015-0000> was approved by Cabinet on March 7, 2012.
2. Is the national cybersecurity strategy current, comprehensive, and inclusive?	◑	South Africa's cybersecurity policy has been operating since 2010 and is currently based on the National Cybersecurity Policy Framework (revised in 2012). The Framework is comprehensive but out of date. The Framework was created to address cyber threats; promote a cybersecurity culture; strengthen intelligence to face cybercrime, cyberterrorism, and cyberwarfare; protect national critical information infrastructure; build cybersecurity partnerships; and ensure proper governance for South Africa's cyberspace.
3. Are there laws or appropriate guidance containing general security requirements for cloud service providers?	✖	The Protection of Personal Information Act 2013 contains broad security requirements and contains a provision for the Information Regulator <www.justice.gov.za/inforeg> to issue codes of conduct. As of June 2017, these aspects of the law have not yet been implemented.
4. Are laws or guidance on security requirements transparent, risk-based, and not overly prescriptive?	✖	There are no relevant security requirements in place (as of June 2017). These requirements are expected to be implemented in late 2017.
5. Are there laws or appropriate guidance containing specific security audit requirements for cloud service providers that take account of international practice?	✖	There are no relevant security audit requirements in place (as of June 2017).
6. Are international security standards, certification, and testing recognized as meeting local requirements?	✖	Certification requirements are not yet part of the South African ICT environment, although they may be given a higher profile following the passage of the Cybercrimes and Cybersecurity Bill <www.justice.gov.za/legislation/bills/CyberCrimesBill2017.pdf>. The bill was submitted to parliament in early 2017. South Africa is not a participant in the Common Criteria Recognition Agreement (CCRA) <www.commoncriteriaportal.org>.
CYBERCRIME (SCORE: 11/12.5 | RANK: 11/24)		
1. Are cybercrime laws or regulations in place?	✔	Sections 86 and 87 of the Electronic Communications and Transactions Act include comprehensive cybercrime provisions. A Cybercrimes and Cybersecurity Bill <www.justice.gov.za/legislation/bills/CyberCrimesBill2017.pdf> was submitted to parliament in early 2017.
2. Are cybercrime laws or regulations consistent with the Budapest Convention on Cybercrime?	✔	South Africa signed the Council of Europe Convention on Cybercrime in 2001, but has not yet ratified it. The South African legislation is consistent with the text of the convention. In addition, the Cybercrimes and Cybersecurity Bill <www.justice.gov.za/legislation/bills/CyberCrimesBill2017.pdf> was submitted to parliament in early 2017.

# SOUTH AFRICA	RESPONSE	EXPLANATORY TEXT
3. Do local laws and policies on law enforcement access to data avoid technology-specific mandates or other barriers to the supply of security products and services?	◑	The Regulation of Interception of Communications and Provision of Communication-Related Information Act allows access to all electronic information subject to appropriate judicial oversight. Under these provisions, the Minister of Communications is required to maintain a register of cryptography providers to enable law enforcement officials to request a decryption key from such providers. The provisions were used in the high-profile murder trial of the former Paralympian Oscar Pistorius in 2015. In addition, the Cybercrimes and Cybersecurity Bill <www.justice.gov.za/legislation/bills/CyberCrimesBill2017.pdf> was submitted to parliament in early 2017 and includes a provision (Clause 27) allowing police to : "use or obtain and use any instrument, device, equipment, password, decryption key, data, computer program, computer data storage medium or computer system or other information that is believed, on reasonable grounds, to be necessary to search for, access or seize an article identified in the warrant to the extent set out in the warrant."
4. Are arrangements in place for the cross-border exchange of data for law enforcement purposes that are transparent and fair?	✔	South Africa is party to numerous Mutual Legal Assistance Treaties (MLATs) and other international agreements for sharing data for law enforcement cooperation <www.justice.gov.za/ilr/mla.html>. South Africa will also be able to use the mutual cooperation mechanisms set out in the Council of Europe Convention on Cybercrime, once they have ratified the Convention. The agreements are up to date and follow international best practice.
INTELLECTUAL PROPERTY RIGHTS (SCORE: 6/12.5 | RANK: 15/24)		
1. Are copyright laws or regulations in place that are consistent with international standards to protect cloud service providers?	◑	South Africa's Copyright Act 1978 includes a basic copyright protection regime. South Africa signed the WIPO Copyright Treaty in 1997. However, it has not been ratified. In mid-2015, the government released a draft bill to amend and update South African copyright law <www.gov.za/sites/www.gov.za/files/39028_gon646c.pdf>. The passage of the bill has faced considerable delays, and as of June 2017 a final draft of the bill has not been submitted to Parliament. Copyright "safe harbor" protection for intermediaries such as cloud service providers is contained in Section 73 of the Electronic Communications and Transactions Act 2002.
2. Are copyright laws or regulations effectively enforced and implemented?	◑	South Africa has a reasonably strong copyright enforcement regime in place. There is a focus on civil proceedings, as criminal procedures face long delays. South Africa's copyright law is the subject of proposed revisions, but the amendment bill has faced significant delays. Copyright "safe harbor" protection for intermediaries is available. However, in order to qualify for the all safe harbor indemnities, the service provider must be a member of an industry representative body for Internet intermediaries — the Internet Service Providers' Association — and has to adopt and implement the official code of conduct of that representative body. This approach is not consistent with international practice and may act as a barrier for some cloud service providers. On a more positive note, the safe harbor protections are very broad — extending beyond just copyright infringement.
3. Is there clear legal protection against misappropriation of trade secrets?	◑	There is no specific statutory protection for trade secrets in South Africa. However, trade secrets are partially protected by employment law and/or the law of unlawful competition. South Africa defines trade secrets as information that relates to and is capable of application in trade or industry, that is secret or confidential, and that is of economic value to the owner.
4. Is the law or regulation on trade secrets effectively enforced?	◑	Remedies available in South Africa include both injunctions and damages, but enforcement is complex and difficult. The South African court system faces severe delays, and the law of trade secrets applying to employees is particularly complicated.
5. Is there clear legal protection against the circumvention of Technological Protection Measures?	◑	South Africa has some limited provisions in place regarding technological protection measures, contained in sections 86, 87, and 88 of the Electronic Communications and Transactions Act (Act 25 of 2002). In mid-2015, the government released a draft bill to amend and update South African copyright law <www.gov.za/sites/www.gov.za/files/39028_gon646c.pdf>. The bill proposes to amend Articles 27 and 28 of the Copyright Act to make the circumvention of technological protection measures (TPMs) a crime. However, the passage of the bill has faced considerable delays, and as of June 2017 a final draft of the bill has not been submitted to Parliament.

# SOUTH AFRICA	RESPONSE	EXPLANATORY TEXT
6. Are laws or regulations on the circumvention of Technological Protection Measures effectively enforced?	✖	Protection of technological protection measures in South Africa is limited, but there are proposals to expand and enhance the protections. Enforcement action in this field is very rare.
7. Are there clear legal protections in place for software-implemented inventions?	◑	The South African Patents Act 1978 states that "anything which consists of a program for a computer shall not be an invention for the purposes of this Act." The provision does allow some discretion where the invention has an additional technical effect, and this may cover software-implemented inventions.
8. Are laws or regulations on the protection of software-implemented inventions effectively implemented?	✖	South Africa has an unusual approach to managing patents, in that the South African Patent Office is a "non-examining" patent office, and does not investigate each application in detail. Instead, it registers patents that meet certain filing conditions, and then any challenge to the patent is left to the courts. In practice this means that there is considerable uncertainty regarding the legal status of patents for software-implemented inventions, even if the patent has been successfully registered. The overall effect is that patent protection for software-implemented inventions is extremely limited in South Africa.
STANDARDS AND INTERNATIONAL HARMONIZATION (SCORE: 11.5/12.5 | RANK: 8/24)		
1. Is there a regulatory body responsible for standards development for the country?	✔	The South African Bureau of Standards (SABS) <www.sabs.co.za> is in place.
2. Are international standards favored over domestic standards?	✔	South Africa favors international standards.
3. Does the government participate in international standards setting process?	✔	South Africa was a founding member of the International Standards Organization (ISO) and remains active in international standards development processes. South Africa is a participant in the top-level ICT standards committee (JTC-1) <www.iso.org/isoiec-jtc-1.html>.
4. Are e-commerce laws or regulations in place?	✔	The Electronic Communications and Transactions Act 2002 is in place.
5. What international instruments are the e-commerce laws or regulations based on?	UNCITRAL Model Law on E-Commerce	The Electronic Communications and Transactions Act closely mirrors the UNCITRAL Model Law on E-Commerce, although the electronic signatures provisions are slightly different.
6. Is there a law or regulation that gives electronic signatures clear legal weight?	✔	Section 13 of the Electronic Communications and Transactions Act 2002 covers electronic signatures.
7. Are cloud service providers free from mandatory filtering or censoring?	◑	There are some content restrictions in place in South Africa, mainly relating to child pornography. In 2009, amendments expanded the requirements of the Electronic Communications and Transactions (ECT) Act 2002. However, the prescreening of content provision mandated by these amendments was subsequently declared unconstitutional. The ECT Act requires ISPs to respond to takedown notices regarding illegal content, including both child pornography and copyright violations. The act exempts ISPs from any liability for hosting or monitoring such content as long as they belong to a recognized industry association and abide by take down notices. As of June 2017, in addition to these provisions, South Africa is considering a wide range of additional controls on online content. These proposals are scattered across three bills: (1) The Films and Publications Amendment Bill 2015 contemplates severe restrictions and a wide-ranging classification regime for online content; (2) The Prevention and Combating of Hate Crimes and Hate Speech Bill 2016 (little detail has been made public about the proposed approach to online speech in this bill); and (3) The Cybercrimes and Cybersecurity Bill 2017 contains a prohibition on certain types of communications. These proposals are very controversial in South Africa and its progress is being watched closely by stakeholders.

COUNTRY: SOUTH AFRICA

#	SOUTH AFRICA	RESPONSE	EXPLANATORY TEXT
	PROMOTING FREE TRADE (SCORE: 6/12.5 | RANK: 16/24)		
1.	Is a national strategy or platform in place to promote the development of cloud services and products?	✖	South Africa does not have a formal policy on the promotion of cloud computing. The National Integrated ICT White Paper (September 2016), contains a proposal to study the implications of cloud computing: "South Africa is committed to proactively exploring the impact of new technologies on the objectives set in this White Paper. Such new technologies include the Internet of Things, Cloud Computing and Digital Information Management applications." <www.dtps.gov.za/images/phocagallery/Popular_Topic_Pictures/National_Integrated_ICT_Policy_White.pdf>
2.	Are there any laws or policies in place that implement technology neutrality in government?	◑	The National Integrated ICT White Paper (September 2016), contains a proposed commitment to technology neutrality in South Africa <www.dtps.gov.za/images/phocagallery/Popular_Topic_Pictures/National_Integrated_ICT_Policy_White.pdf>. However, that proposal needs to be read in the context of South Africa's adoption of a formal policy on the use of open source software in government in 2007 <www.gov.za/documents/policy-free-and-open-source-software-use-south-african-government>.
3.	Are cloud computing services able to operate free from laws or policies that either mandate or give preference to the use of certain products, services, standards, or technologies?	◑	The government's strategy is to implement mandatory requirements for open source software over time. In practice, the strategy has not yet been implemented <www.gov.za/documents/policy-free-and-open-source-software-use-south-african-government>.
4.	Are cloud computing services able to operate free from laws, procurement policies, or licensing rules that discriminate based on the nationality of the vendor, developer, or service provider?	◑	South Africa has complex government procurement laws and policies, including the Preferential Procurement Policy Framework Act 2000. The laws attempt to resolve issues, barriers, and discrimination that existed in the apartheid era, and they therefore intervene in procurement policy in many areas. Domestic preferences are just one part of the complex requirements in South Africa.
5.	Has the country signed and implemented international agreements that ensure the procurement of cloud services is free from discrimination?	✖	South Africa is not a member or observer of the World Trade Organization (WTO) plurilateral Agreement on Government Procurement <www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm>.
6.	Are services delivered by cloud providers free from tariffs and other trade barriers?	✔	Although tariffs and other trade barriers are a concern in some sectors in South Africa, the information technology sector remains free and open.
7.	Are cloud computing services able to operate free from laws or policies that impose data localization requirements?	✔	There are no data localization requirements in South Africa that have an effect on cloud services and products. There is a brief discussion on the potential use of data localization in the National Integrated ICT White Paper (September 2016) <www.dtps.gov.za/images/phocagallery/Popular_Topic_Pictures/National_Integrated_ICT_Policy_White.pdf>. However, there is no firm policy proposal, and no details are provided.

# SOUTH AFRICA	RESPONSE	EXPLANATORY TEXT
IT READINESS, BROADBAND DEPLOYMENT (SCORE: 10.3/25 | RANK: 20/24)		
1. Is there a National Broadband Plan?	By 2016: • 50% of population with access to speeds of 5 Mbps By 2020: • 90% of population with access to speeds of 5 Mbps • 50% to speeds of 100 Mbps By 2030: • 100% of population with access to speeds of 10 Mbps • 80% to speeds of 100 Mbps	The South African government released ambitious broadband targets in December 2013 in the South Africa Connect plan <www.gov.za/sites/www.gov.za/files/37119_gon953.pdf>. The headline targets are: • By 2016, 50% of population with access to speeds of 5 Mbps; • By 2020, 90% of population with access to speeds of 5 Mbps; 50% to speeds of 100 Mbps; and • By 2030, 100% of population with access to speeds of 10 Mbps; 80% to speeds of 100 Mbps. There are further sub-targets for: • Schools and health facilities with access to speeds of 1 Gbps by 2030; and • Government facilities with access to speeds of 100 Mbps by 2030. South African's previous broadband plan was released in July 2010. It recognized national broadband issues and set the following targets: • By 2019, universal access to broadband [minimum 256 kbps] (Universal access is defined as meaning there will be a public ICT access point within a 2 km radius of any person in sparsely populated areas); and • By 2019, household broadband penetration of 15%. The Department of Telecommunications and Postal Services (DTPS) <www.dtps.gov.za> has oversight of the national broadband program: "The 2013 Broadband Policy aims at ensuring universal access to reliable, affordable and secure broadband infrastructure and services by 2020 and stimulate sustainable uptake and usage of ICTs." The South African Government has created a state-owned operator, Infraco <www.infraco.co.za>, to participate directly in the construction of broadband networks.
2. Is the National Broadband Plan being effectively implemented?	✖	South Africa's broadband penetration, broadband speeds, and affordability are very low and the South Africa Connect targets are ambitious. When released, the South Africa Connect broadband plan was considered unrealistic and overly ambitious, with concerns around the level of investment required and the required rate of broadband access growth exceeding growth in other markets at the same stage. It was suggested that over-reach could jeopardize even modest gains. The SA Connect program has been considerably delayed and has struggled to commence. The pilot phase of SA connect was announced by the South African president, declaring that 2015 was "the year of state broadband rollout." Since then implementation has been very limited and not coordinated. Initiatives have been characterized by limited funds, missed deadlines, and cancelled contracts. The State IT Agency (SITA) <www.sita.co.za> was responsible for tendering for phase one of SA Connect and In November 2016 cancelled the SA Connect phase one tender due to lack of qualifications of the bidders. There has been recent progress to "kick-start" the SA Connect phase one implementation: • In January 2017 the DTPS announced it was exploring alternative mechanisms of implementing phase one of SA Connect. In February 2017 the National Treasury allocated R1.9 billion over the medium-term to DTPS to invest in high-speed Internet connections in public buildings and schools in eight National Health Insurance pilot districts • In May 2017 the DTPS announced plans to revive the National Broadband Advisory Council (NBAC), to help with the rollout of broadband services in the country. • In May 2017 the Telecommunications minister announced that in-house entities would deliver broadband services to eight districts identified as priority areas in the pilot phase of SA connect and a budget of R416 million was allocated to connect 2,700 sites <www.gov.za/speeches/minister-siyabonga-cwele-telecommunications-and-postal-services-budget-201718-24-may-2017>.

# SOUTH AFRICA	RESPONSE	EXPLANATORY TEXT
3. Are there laws or policies that regulate "net neutrality"?	Regulation under consideration	South Africa is proposing to introduce strict net neutrality requirements. The proposal is set out in the Integrated ICT White Paper (2016) <www.dtps.gov.za/images/phocagallery/Popular_Topic_Pictures/National_Integrated_ICT_Policy_White.pdf>. The paper states that: "The Integrated ICT White Paper therefore introduces a net neutrality framework to bar Internet intermediaries from acting as gate keepers while ensuring transparency for users. It specifies that all legal and lawful Internet traffic must be treated equally, without discrimination, restriction or interference, regardless of the sender, receiver, content, device, service, or application." As of June 2017, this proposal is in the early stages of implementation.
4. Base Indicators		
4.1. Population (millions) (2015) • Total for all countries in this scorecard: 4,700 million	53	In 2015, the population of South Africa increased by 0.7%. [International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
4.2. Urban Population (%) (2015) • Average for all countries in this scorecard: 73%	65%	In 2015, the urban population of South Africa increased by 0.8%. [World Bank, Data Catalog, Indicators, Urban Population (Jan. 2017) <data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS>]
4.3. Number of Households (millions) (2015) • Total for all countries in this scorecard: 1,249 million	13	In 2015, the number of households in South Africa increased by 0.7%. [International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
4.4. Population Density (people per square km) (2015) • Average for all countries in this scorecard: 471	45	In 2015, the population density of South Africa increased by 1.7%. [World Bank, Data Catalog, Indicators, Population Density (Jan. 2017) <data.worldbank.org/indicator/EN.POP.DNST>]
4.5. Per Capita GDP (US$ 2015) • Average for all countries in this scorecard: US$ 22,649	$5,724	In 2015, the per capita GDP for South Africa increased by 1.3% to US$ 5,724. This was above the five-year compound annual growth rate (CAGR) from 2010–2015 of -5%. This ranks South Africa 21st for value of per capita GDP and 22nd for growth (CAGR) for this indicator in this scorecard. [World Bank, Data Catalog, Indicators: GDP Per Capita, Current US$ (Jan. 2017) <data.worldbank.org/indicator/NY.GDP.PCAP.CD> and GDP Growth, Annual % (Jan. 2017) <data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>]
4.6. ICT Service Exports (billions of US$) (2015) • Total for all countries in this scorecard: US$ 978 billion	$3	In 2015, the value of ICT service exports for South Africa decreased by 1.9% to US$ 2.54 billion. This was below the five-year compound annual growth rate (CAGR) from 2010–2015 of 3.8%. This ranks South Africa 21st for value of ICT service exports and 22nd for growth (CAGR) for this indicator in this scorecard. [World Bank, Data Catalog, Indicators: ICT Service Exports US$ (Jan. 2017) <data.worldbank.org/indicator/BX.GSR.CCIS.CD>]
4.7. Personal Computers (% of households) (2015) • Average for all countries in this scorecard: 63%	20%	In 2015, 20.1% of households in South Africa had personal computers. This is a decrease of -3.1% since 2014 and ranks South Africa 129th out of 236 countries surveyed. The growth from 2014 is below the five-year compound annual growth rate (CAGR) from 2010 to 2015 of 1.9%. This ranks South Africa 22nd for the number of personal computers (as a % of households) and 15th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
5. IT and Network Readiness Indicators		
5.1. ITU ICT Development Index (IDI) (2016) (score is out of 10 and covers 175 countries) • Average for all countries in this scorecard: 6.58	5.03	South Africa's ITU ICT Development Index (IDI) for 2016 is 5.03 (out of 10), resulting in a rank of 88th (out of 175 economies). The 2016 IDI for South Africa increased by 7%, and the IDI ranking declined by 2 from a rank of 86th since 2015. This ranks South Africa 20th in the ITU ICT Development Index and 5th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), Measuring the Information Society (Dec. 2016) <www.itu.int/net4/ITU-D/idi/2016>]

# SOUTH AFRICA	RESPONSE	EXPLANATORY TEXT
5.2. World Economic Forum Networked Readiness Index (NRI) (2016) (score is out of 7 and covers 139 countries) • Average for all countries in this scorecard: 4.77	4.16	South Africa has a Networked Readiness Index (NRI) score of 4.16 (out of 7), resulting in a rank of 65th (out of 139 economies) and a rank of 14th (out of 34) in the Upper middle income grouping of economies. The 2016 NRI for South Africa increased by 4.2% and improved by 10 places from a rank of 75th since 2015. This ranks South Africa 18th in the ITU ICT Development Index and 6th for growth (CAGR) for this indicator in this scorecard. [World Economic Forum, Global Information Technology Report (2016) <reports.weforum.org/global-information-technology-report-2016>]
6. Internet Users and International Bandwidth		
6.1. Internet Users (millions) (2015) • Total for all countries in this scorecard: 2,330 million	28	[International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
6.2. Internet Users (% of population) (2015) • Average for all countries in this scorecard: 67%	52%	In 2015, 52% of the population in South Africa used the Internet, resulting in a ranking of 101st out of 236 countries surveyed by the ITU. This is an increase of 6% since 2014 and is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 16.7%. This ranks South Africa 20th in the proportion of the population using the Internet and 2nd for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>] Note: There may be some variations as to how countries calculate this. Some countries base this upon all or part of the population — such as between 16 and 72 years of age.
6.3. International Internet Bandwidth (total gigabits per second (Gbps) per country) (2015) • Total for all countries in this scorecard: 117,736 Gbps	4,100	South Africa has increased its international Internet bandwidth by 5% since 2014 to 4,100 Gbps and is ranked 10 out of 236 countries surveyed by the ITU. The growth from 2014 is below the five-year compound annual growth rate (CAGR) from 2009–2014 of 10.4%. This ranks South Africa 9th for total international Internet bandwidth and 23rd for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
6.4. International Internet Bandwidth (bits per second (bps) per Internet user) (2015) • Average for all countries in this scorecard: 97,747 bps	147,630	The international Internet bandwidth (per Internet user) of South Africa has decreased by -1% since 2014. The growth from 2014 is above the five-year compound annual growth rate (CAGR) from 2010–2015 of -6.1%. This ranks South Africa 3rd for international Internet bandwidth per user and 24th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
7. Fixed Broadband		
7.1. Fixed Broadband Subscriptions (millions) (2015) • Total for all countries in this scorecard: 697 million	1	South Africa has decreased the number of fixed broadband subscribers by -17% since 2014 to 1.41 million, and is ranked 59th out of 236 countries surveyed by the ITU. The growth from 2014 is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 13.7%. This ranks South Africa 24th for the number of fixed broadband subscriptions and 4th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
7.2. Fixed Broadband Subscriptions (% of households) (2015) • Average for all countries in this scorecard: 63%	11%	[International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>] Note: This may be skewed by business usage in some countries.

# SOUTH AFRICA	RESPONSE	EXPLANATORY TEXT
7.3. Fixed Broadband Subscriptions (% of population) (2015) • Average for all countries in this scorecard: 21%	3%	South Africa has decreased its fixed broadband subscriptions (as a % of the population) by -17.9% since 2014, which is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 12.8%. This ranks South Africa 141st out of 236 countries surveyed by the ITU. This ranks South Africa 22nd for the number of fixed broadband subscriptions (as a % of the population) and 4th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
7.4. Fixed Broadband Subscriptions (% of Internet users) (2015) • Average for all countries in this scorecard: 29%	5%	[International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
7.5. Average Broadband Data Connection Speed (total megabits per second (Mbps) per country) (Q1 2017) • Average for all countries in this scorecard: 12 Mbps • Average peak for all countries in this scorecard: 70 Mbps	7	In South Africa the Q1 2017 average broadband data connection speed was 6.74 Mbps and is ranked 97th out of 239 countries measured by Akamai. This ranks South Africa 22nd for average broadband data connection speed in this scorecard. Additional connection metrics for Q1 2017 in South Africa include: • Average peak broadband connection speed: 32.36 Mbps (ranked 136th globally and 24th in this scorecard) • Above 4 Mbps: 58% (ranked 114th globally and 23rd in this scorecard) • Above 10 Mbps: 12% (ranked 110th globally and 24th in this scorecard) • Above 15 Mbps: 6% (ranked 94th globally and 20th in this scorecard) • Above 25 Mbps: 3% (ranked 74th globally and 17th in this scorecard) [Akamai, The State of the Internet (1st Quarter, 2017) <www.akamai.com/us/en/about/our-thinking/state-of-the-internet-report/>]
8. Fiber-to-the-home/building (FttX)		
8.1. Fiber-to-the-home/building (FttX) Internet Subscriptions (millions) (2015) • Total for all countries in this scorecard: 258 million	0.02	South Africa has increased the number of FttX subscribers by 514% since 2014 to 0.02 million, and is ranked 71st out of 236 countries surveyed by the ITU. This ranks South Africa 22nd for the number of FttX subscriptions and 1st for growth (from 2014) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
8.2. Proportion of Fiber-to-the-home/building (FttX) Internet Subscriptions (% of households) (2015) • Average for all countries in this scorecard: 18%	0.2%	South Africa has increased the proportion of FttX subscribers to households by 514% (since 2014) to 0.15%. This ranks South Africa 21st for the proportion of FttX subscriptions to households and 1st for growth (from 2014) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>] Note: This may be skewed by business usage in some countries.
8.3. Proportion of Fiber-to-the-home/building (FttX) Internet Subscriptions (% of fixed broadband subscriptions) (2015) • Average for all countries in this scorecard: 23%	1.4%	South Africa has increased the proportion of FttX subscribers to fixed broadband subscribers by 514% (since 2014) to 1.41%. This ranks South Africa 21st for the proportion of FttX subscriptions to fixed broadband subscriptions and 1st for growth (from 2014) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]

# SOUTH AFRICA	RESPONSE	EXPLANATORY TEXT
9. Mobile Broadband		
9.1. Mobile Cellular Subscriptions (millions) (2015) • Total for all countries in this scorecard: 4,823 million	88	In 2015, South Africa increased the number of mobile cellular subscriptions by 11% since 2014, which is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 11.8%. South Africa is ranked 17th out of 236 countries surveyed by the ITU. The number of subscriptions account for 165% of the population. This ranks South Africa 12th for the number of mobile cellular subscriptions and 1st for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>] Note: This figure may be inflated due to multiple subscriptions per head of population, but excludes dedicated mobile broadband devices (such as 3G data cards, tablets, etc.).
9.2. Number of Active Mobile Broadband Subscriptions (millions) (2015) • Total for all countries in this scorecard: 2,506 million	36	In 2015, South Africa has increased the number of active mobile broadband subscriptions by 45%, which is above the five-year compound annual growth rate (CAGR) from 2010–2015 of 32.8%. South Africa is ranked 21st out of 236 countries surveyed by the ITU. This ranks South Africa 18th for the number of active mobile broadband subscriptions and 10th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>]
9.3. Active Mobile Broadband Subscriptions (% of population) (2015) • Average for all countries in this scorecard: 77%	67%	South Africa has increased the number of active mobile broadband subscriptions (as a % of the population) by 44% since 2014, which is above the five-year compound annual growth rate (CAGR) from 2010–2015 of 31.8%. South Africa is ranked 55th out of 236 countries surveyed by the ITU. This ranks South Africa 16th for the number of active mobile broadband subscriptions (as a % of the population) and 10th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>] Note: This refers to the sum of standard mobile broadband and dedicated mobile broadband subscriptions to the public Internet. It covers actual subscribers, not potential subscribers, even though the latter may have broadband enabled-handsets.
9.4. Average Mobile Data Connection Speed (total megabits per second (Mbps) per country) (Q1 2017) • Average for all countries in this scorecard: 11 Mbps	7	In South Africa the Q1 2017 average mobile data connection speed was 6.9 Mbps and is ranked 53rd out of 70 countries measured by Akamai. This ranks South Africa 19th for average mobile data connection speed in this scorecard. [Akamai, The State of the Internet (1st Quarter, 2017) <www.akamai.com/us/en/ about/our-thinking/state-of-the-internet-report/>]