MINISTRY
COMMUNICATIONS AND DIGITAL TECHNOLOGIES
REPUBLIC OF SOUTH AFRICA

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South Africa's Communications & Digital Technology Infrastructure Roadmap, 28-31 October 2024

Program Director,
Distinguished guests,
Industry leaders, and
Esteemed colleagues.
Good afternoon.

I am honoured to address you today on key areas that are vital to our roadmap in the communications and digital technologies sector in South Africa. My remarks will cover the following three key topics:

1) The importance of the digital transformation of the economy and society
2) Where we are and the priorities of the current administration from 2024 to 2029
3) For each of these priorities, I will present our "big bets", in other words the areas where we see the most opportunities arising and the key reforms we are implementing.

The importance of the digital transformation of the economy and society

The National Development Plan set South Africa the goal of achieving 5.4% average annual GDP growth and reducing unemployment from a level of 24.9% in 2012 to 6% by 2030.
The Government of National Unity (GNU) has the responsibility now to review what are feasible but ambitious targets. The digitalization agenda has an enormous role to play.

Sources suggest that the contribution of South Africa's digital economy ranges from anywhere between 2% and 19% of GDP[i].

Where we are and the priorities of the current administration (2024- 2029)

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The Department of Communications and Digital Technologies has the mandate of leading South Africa's digital transformation, this is the task of leveraging digital technologies to accelerate change across the South African economy and society.

I believe there are four areas where we need to double down, in order to close the digital divide, drive economic growth, and create sustainable jobs. These areas are:

1) Ensuring universal access to the internet,
2) Empowering people with digital skills for a digital economy and society,
3) Enabling productive use of digital technologies, and
4) Creating a supportive environment for digital investment and innovation:

Allow me to expand on these priorities:

Universal Access to the Internet

Our first priority area is universal access. We are committed to achieving universal access to affordable, high-speed internet, with a particular emphasis on connecting homes and schools.

There is a well-documented positive and significant relationship between increased internet access and GDP growth. By some estimates, 10% increase in broadband penetration is correlated with a 1.38% increase in GDP for developing countries.

As of 2023, 78.6% of South Africans have some form of access to the internet. This is largely driven by mobile penetration as 72.6% of households have access to the internet via a mobile phone.

This is in comparison to 14.5% of households with a fixed internet connection.[ii] Looking to schools, 20.3%[iii] of schools have an internet connection suitable for teaching and learning.

While a total of 80% of public schools have access to Internet connectivity. The majority of these schools are connected using 3G/LTE that is not ideal for teaching and learning.[iv] This underscores that the quality of connectivity also matters.

We are in the process of finalising our strategic plans but we aim to set ourselves ambitious targets in these areas.

Broadband internet connectivity is a foundational pillar in South Africa's digital transformation journey. It provides the necessary infrastructure for digital inclusion and enables other sectors of government to effectively deliver on their mandates in areas such as education, healthcare, and public safety.

Big Bets:

To achieve true universal connectivity, our strategy has been built on three key layers, namely:
⇒ International connectivity through submarine cables
⇒ National connectivity through terrestrial cables
⇒ And last mile connectivity through a combination of fixed and wireless solutions.

Each of these areas present opportunities for further development and reforms.

International Connectivity: Strengthening South Africa's Global Linkages

South Africa is fortunate to be a landing point for several major submarine cables, which provide the backbone for high-speed international connectivity.
These submarine cables not only connect our nation to the rest of the world but also position South Africa as a regional hub for digital traffic in Africa.

Key infrastructure developments include the 2Africa submarine cable, which will strengthen our international bandwidth and improve our connection to Europe, the Middle East, and the rest of Africa.

Once completed, this cable will provide a significant boost to internet speeds and redundancy, ensuring that our digital infrastructure remains robust and resilient.

We are also seeing further investments with the Equiano cable, funded by Google, which will enhance South Africa's international connectivity and improve the reliability and capacity of our data services, supporting industries such as finance, media, and cloud computing.

National Connectivity: Expanding High-Speed Terrestrial Networks

While international connectivity is crucial, the national terrestrial fibre network forms the core of our domestic broadband infrastructure.

Our goal is to connect every corner of South Africa, ensuring that all citizens, regardless of location, have access to reliable and high-speed internet.

South Africa's major telecom operators – such as Telkom (Openserve), Liquid Intelligent Technologies, Maziv (CIVH) and others – are investing heavily in fibre infrastructure.

These investments are expanding the national backbone, which links major cities, towns, and regions to one another, providing seamless communication across our country.

Terrestrial fibre is also being extended to underserved and rural areas through both public sector initiatives and public-private partnerships.

Programs like SA Connect are integral to ensuring that critical institutions – schools, hospitals, and clinics – are equipped with the necessary bandwidth to perform their essential functions.

Last Mile Connectivity: Bridging the Digital Divide

To complete the broadband ecosystem, we must ensure last mile connectivity – bringing internet services directly to end-users, particularly in remote, rural, and underserved urban areas.

This is perhaps the most challenging part of the connectivity puzzle, but one where a range of innovative solutions is being deployed.
Fiber-to-the-Home (FTTH) solutions are being rolled out in high-density urban and suburban areas, providing high-speed, reliable internet access to homes and businesses.

Openserve, Vumatel, and Fibertime are some of the leading providers playing key roles in ensuring that fibre connectivity reaches households, enabling families, entrepreneurs, and SMEs to engage with the digital economy.

Telkom, Rain, Vodacom, and MTN are leading efforts in rolling out 5G networks, which are set to revolutionize last-mile connectivity by offering faster speeds, lower latency, and increased network capacity.

Additionally, there is opportunity for satellite broadband services to play a critical role in connecting the most remote regions of the country, where even wireless networks struggle to reach.

These services ensure that no one is left behind, particularly in areas where traditional terrestrial or wireless solutions are impractical. In this regard we are working quickly to remove regulatory barriers.

We know, for example, that local ownership requirements have in the past made it almost impossible for multinational firms to enter the South African market.

In consultation with the regulator, we will by the end of this year issue a policy direction which will provide for alternative avenues to local ownership.

Hardware

Affordable data and smart devices are also critical for achieving internet access and usage targets:

"The results of research, such as that conducted by the World Bank on device affordability, indicate that in many countries considerable supply-side cost savings for entry level devices may be attainable via reductions in taxes and import duties. Combined, import duties and other national taxes, such as sales tax or value added tax (VAT), can represent close to 30–40 percent of the consumer's total device cost."[v]

In agreement with treasury, a task team is being set up to explore the fiscal and net economic pact of removing or reducing import taxes on smart devices

(ideally this would include smartphones, laptops and customer premises equipment (CPE) necessary for the acceleration of 5G fixed wireless access.

Digital Skills for a digital economy and society
Providing connectivity is only part of the solution. Our second priority (though these are not in order of importance) is to ensure that all South Africans have the skills to make full use of digital technologies.

Through targeted digital skills programs, we aim to empower citizens, especially the youth, to actively participate in the digital economy, whether as employees, entrepreneurs, or innovators.

The International Telecommunications Union (ITU) groups digital skills into three categories:
1) **basic digital skills:** these are the foundational skills necessary to perform basic tasks that enable people to function at a minimum level in society, including using hardware and software and conducting basic online operations such as email;

2) **intermediate skills:** which are skills for using digital technologies in more meaningful and beneficial ways, e.g. critically evaluate technology and create content, and that enable people to perform work-related functions such as desktop publishing, digital graphic design and digital marketing (i.e. job-ready skills).

3) **advanced skills:** such as those required by specialists in ICT professions such as computer programming and network management, including working with artificial intelligence (AI), virtual reality (VR), big data, the Internet of Things (IoT), cybersecurity and digital entrepreneurship.

A recent study assessing the skills demand and supply in the digital economy in South Africa, also included a survey of enterprises and organizations in the private as well as public sector.

The study shows that **80%** report that their employees have basic digital skills, 1 in 4 report (i.e., **25%)** their employees having intermediate digital skills, and only **10%** report that their employees have advanced digital skills.

While there are guiding policy frameworks and many projects underway between the private and public sectors, there is a need to define where we are headed in terms of digital skills and develop shared targets for 2030 for the percentage of the population with basic, intermediate, and advanced digital skills.

Big Bets:

National Digital Skills Strategy

In order to enable wider usability of digital technologies, the government has implemented a National Digital Skills and Future Skills Strategy which identifies priority digital skills for the country in line with international trends and national development objectives.

Attracting Skilled Professionals

While continuing to ensure that our national department's of education and higher education produce the skills we require, we are also committed to making South Africa an attractive destination for skilled professionals and to make it easier for local business to recruit internationally.

In this regard there have been two key developments: a) the introduction of a remote work visa, and b) the introduction of a new points-based system for the general work visa and the critical skills work visa.

Digital Skills in the Civil Service

Skills within the public sector are crucial too. Recently we launched of the Broadband and Digital Skills Programme; a joint initiative between the Department of Communications, the South Africa Local Government Association (SALGA), and the British High Commission.

The programme aims to empower municipal managers and councillors to steer the deployment of broadband infrastructure.

"The online curriculum of the programme is set to cover areas such as smart cities development and governance, the policy and regulatory frameworks governing the rollout of broadband, rapid deployment strategies of broadband infrastructure in municipalities, as well as ownership options and broadband infrastructure financing and funding mechanisms." [vi]

Productive Use of Digital Technologies

Closely linked to skills, the third priority area is enabling productive use of technologies. South Africa has one of the highest internet usage rates in the world.

While we know that many South Africans are online and using the internet for social media, we want to increase productive uses such as in e-commerce, e-banking, e-government and e-learning.

Data from Research ICT Africa shows that 98% South Africans use the internet for social networking. There is a significant gap between the other top three uses cases, which includes entertainment at 59%, and online banking at 55%.

Less than 30% of South Africans use the internet for shopping (24%), government services (22%) or online education (18%) and learning (14%).[vii]

Big Bets:

Digital Public Infrastructure

The Presidency has established an interdepartmental working group to develop a comprehensive strategy and implementation roadmap for developing South Africa's digital public infrastructure, focusing on the three pillars of digital identity systems, digital payments systems, and data exchange systems.

Enabling a sustainable platform economy

A recent Nasper's report, using data from the International Labour Organisation (ILO) indicates that "digital platforms are set to generate a significant number of new job opportunities.

Projections suggest that by 2030, the platform workforce in Africa could soar to 80 million, representing around 6% of the total workforce.

In South Africa, in particular, while the current number of platform workers is estimated at 135,000 workforce (about 1% of the total workforce) the sector is experiencing rapid growth."

We are committed to supporting the growth of the platform economy while addressing challenges such as under employment and working conditions.

The Naspers report highlights that, "according to inDrive, platform workers earn less than the prescribed minimum wage", and "the 2024 Fairwork report by the University of Oxford further suggests that platform working conditions in South Africa are deteriorating."

Data centres

Digital services will, and already are, significantly driving the demand for data centers, primarily due to the growing need to store, process, and analyze vast amounts of data.

South Africa is positioning itself as a leading hub for data centre infrastructure in Africa, driven by growing demand for cloud services, digital platforms, and big data analytics.

Over the past few years, the country has witnessed substantial investment in data centres, with local and international players establishing a strong presence.

Key developments in the data centre market include:

- Teraco, which has emerged as the largest data centre provider in South Africa, expanded its hyperscale data centres with the opening of new facilities at its Isando campus.

- Equinix, a global leader in data centre infrastructure, is developing its first South African facility, investing $160 million. This project highlights South Africa's position as a strategic data centre location in the region.

- Vantage Data Centres and Africa Data Centres (ADC) have also been expanding their campuses, providing critical IT capacity and offering scalable solutions to businesses and governments.

- NTT, a global technology company, recently opened a 12MW data centre in Johannesburg, reinforcing the country's data centre landscape with world-class infrastructure.

These data centre investments are not only critical to supporting digital transformation and the rise of hyperscale computing but also ensure South Africa's competitiveness in the global digital economy.

These facilities provide the foundation for high-speed processing, cloud services, and data storage, which are essential for businesses, government departments, and institutions.

A Supportive Environment for Digital Investment and Innovation

A key part of our strategy is ensuring a policy and regulatory framework that encourages investment and fosters innovation. By establishing clear, consistent, and supportive policies, we aim to attract further investment and stimulate innovation in our digital ecosystem.

Spectrum Policy

One of the most significant regulatory achievements in recent years has been the successful auctioning of the high-demand spectrum for International Mobile Telecommunications (IMT) services in 2022.

This spectrum licensing was a critical reform aimed at improving mobile broadband services, supporting the rollout of 5G technology, and ensuring that South Africa remains competitive in the global digital economy.

The regulatory authority managed to license more than 300 MHz of the coveted spectrum, unleashing innovation and competition in the sector. I have been informed by ICASA that they have initiated the process of licensing the next round of IMT spectrum.

The IMT spectrum licensing process has not only opened new opportunities for the telcos, but also attached social obligations for the licensees to extend services to underserved communities and connect schools, clinics and libraries, as part of our efforts to bridge the digital divide.

Data and Cloud Policy

As we increasingly position South Africa as a hub for data centres and cloud computing, we have introduced regulatory reforms to facilitate investment in this area.

Our policy is focused on:
• Ensuring compliance with data sovereignty and cybersecurity regulations.
• Encouraging investments in renewable energy to power these facilities, in line with our national sustainability goals.

With South Africa recognized as one of the few African nations to host full cloud regions for global providers like Amazon Web Services (AWS), Google, and Microsoft, we are committed to providing a conducive regulatory environment that fosters continued growth in this area while ensuring robust data protection standards.

National AI Policy Framework

The National AI Policy Framework, recently developed by the Department as a foundation for the Draft AI Policy, provides a comprehensive approach to harnessing AI for economic growth and social development, while also addressing ethical concerns.

Key principles from the framework that guide the DCDT's roadmap include:
Developing a robust regulatory environment for AI, building digital skills and capacity, promoting AI research and innovation, and fostering inclusive growth.

Conclusion

The work raised here is not intended to provide an exhaustive list of interventions, priorities by definition never are.

What we hope to do is take a good, hard look at where we are currently at across indicators that truly matter for leveraging the digital economy for inclusive and sustainable growth.

Then we will target interventions in those areas where we can most make a difference in the next five years and which set us up for success in longer term planning.

I believe we're on the right track, and I have already experienced in my short period of being in office an outpouring of support and goodwill from all corners.

I'm determined to make use of all the expertise and renewed energy we have at our disposal to make South Africa the leading digital economy and society among our peers.

Thank you.

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[i] Digital Economy Masterplan

[ii] https://www.statssa.gov.za/publications/P0318/P03182023.pdf

[iii] https://www.education.gov.za/Portals/0/Documents/Reports/NEIMS%20STANDARD%20REPORT%202021.pdf

[iv] https://pmg.org.za/committee-question/22725/

[v] https://documents1.worldbank.org/curated/en/099080723143031193/pdf/P1737510ac79240b90aaa10618d282c1780.pdf

[vi] https://www.gov.za/news/speeches/minister-solly-malatsi-launch-broadband-and-digital-skills-municipalities-03-sep-2024

[vii] https://researchictafrica.net/research/digital-africa-post-the-pandemic-south-africa-report-after-access-2022-2023/