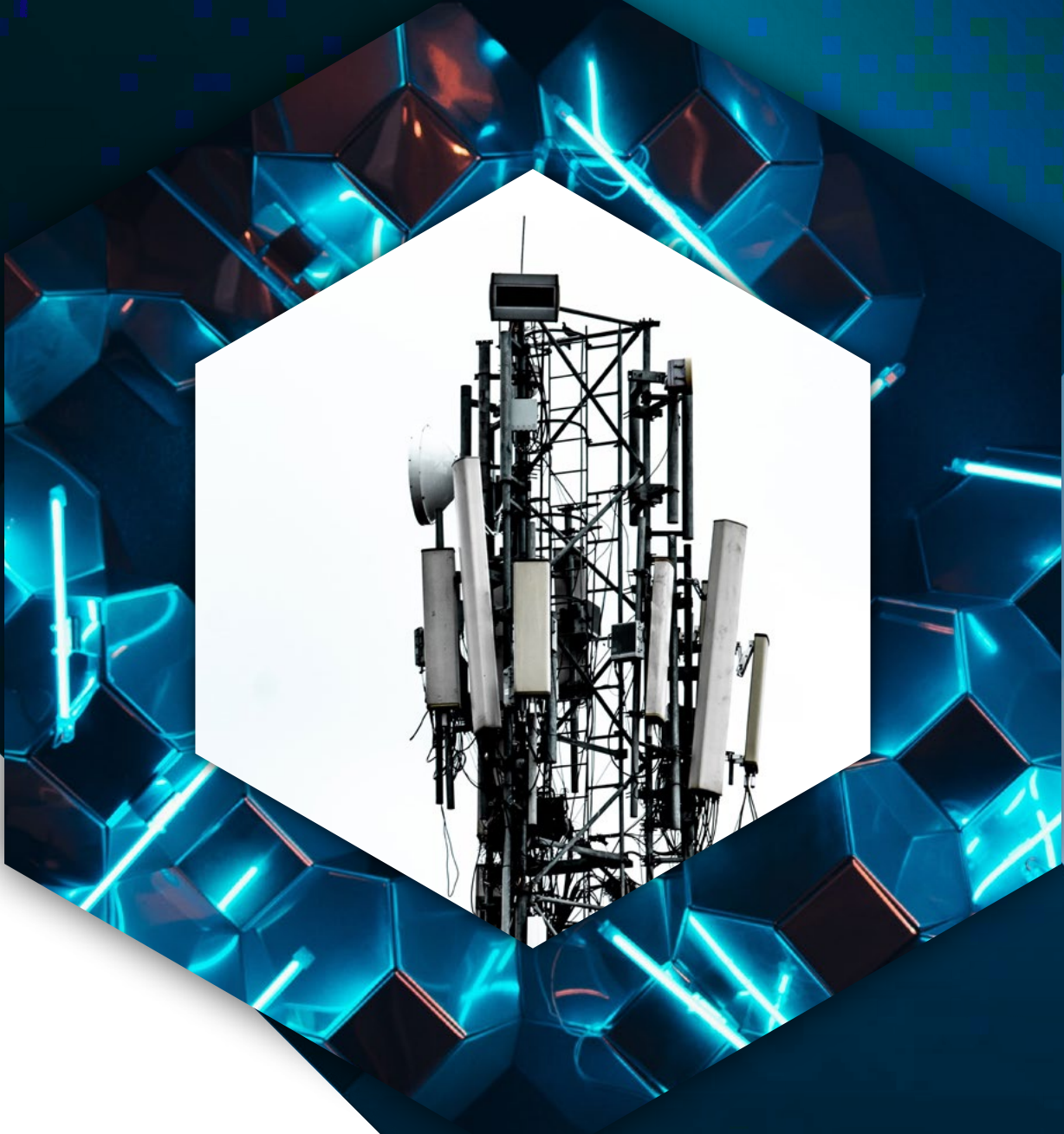


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The Department of Communications and Digital Technologies Report | July 2021



**communications &
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REPUBLIC OF SOUTH AFRICA

VOLUME

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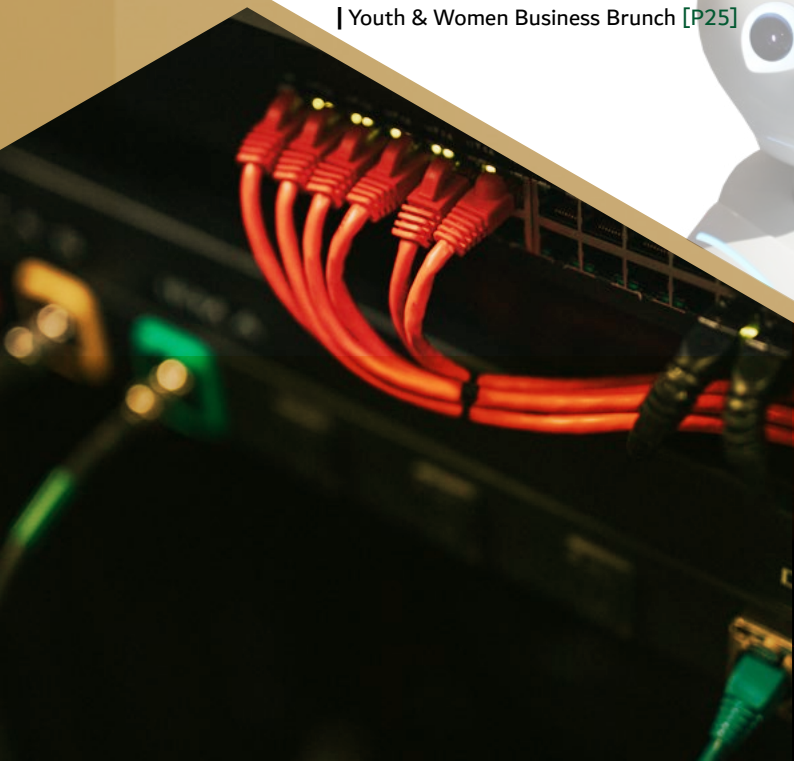
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Building a digital economy

The Department of Communications and Digital Technologies has embarked on a process to develop Data and Cloud Policy as one of the enablers of the digital economy.

Addressing the virtual colloquium on the Draft Data and Cloud Policy last Friday, Minister of Communication and Digital Technologies, Stella Ndabeni-Abrahams, emphasised the importance of building a digital economy, as it presents opportunities to create jobs.

“The digital economy is driven by digitalisation, which is the use of digital technologies and digitised data to impact how work gets done, transform how customers and companies engage and interact, and create new (digital) revenue streams.

“We believe data is the critical asset to set the digital economy in motion. We, therefore, did not decide to develop the Data and Cloud Policy to control and direct how it should be used, but rather as an enabler for social and economic development,” Ndabeni-Abrahams said.

With skills development being a critical intervention to enable economic participation and inclusion, the policy reinforces the issue of skills and capacity development at different levels, including government to create a digitally transformed society through the implementation of the National Digital and Future Skills Strategy published by the department in 2020.

“As government, we also recognise the importance and availability of skills that exist outside State institutions, hence the policy proposal about the D Advisory Council that will draw experts from government, private sector and academia, among others, to contribute towards certain aspects of data governance, including the development of standards relating to the management of data,” the Minister said.,


Ndabeni-Abrahams said the digital economy evolves at a faster pace and has the potential to render many innovations that are obsolete within a short period.



“The policy asserts the role of the Department of Science and Innovation to lead South Africa Research and Development in collaboration with the department to accelerate inclusive economic growth, make the economy more competitive and improve people’s daily lives.

“The policy further, propose the establishment of a dedicated research and development capacity, which is critical for the development of human capital to derive value from data and cloud and the establishment of world standard and reliable cyber-infrastructure,” the Minister said.

The Minister also highlighted that the draft Data and Cloud Policy is also about reinforcing the acceleration of the rollout of digital infrastructure to reinforce a connected society. “It is also about the storage and, processing and digitisation of government data to create access for citizens, emerging businesses, government and even the private sector.



“The government data referred to must be accessed data in a useable form to innovate, develop digital products and services that improve the way we do business, interact with government and each other, support evidence-based policy-making and ultimately enhance service delivery by government,” the Minister said.

Furthermore, it is about creating a feasible environment for data sharing and interoperability to strengthen cooperation and collaboration among government departments and state-owned enterprises to satisfy the unlimited needs of government and citizens.

“The cooperation and collaboration are done through optimization of existing capacities and capabilities of other government and government institutions to create required capacity for data collection, storage and processing.

The draft policy also recognizes the need for data security and protection, hence its reinforcement of Cybersecurity protection of personal information, including the recommendation for review were necessary to support data protection and security and a data-driven economy. It is about recognition of what already exists and implementing necessary enhancements to make it better,” she said.

The Minister clarified the issue of data localisation by stating that government has a responsibility to the security and sovereignty of the Republic. “... As such, we unapologetically insist that Critical Information Infrastructure data (all ICT systems, data systems, databases, networks (including people, buildings, facilities and processes), that are fundamental to the effective operation of the Republic be stored within the borders of South Africa.”

“Kindly also note that there is no intention to force the private sector to store their data in the High-Performance Computing Data Processing Centre. We are clearly indicating that government data will be stored there, while we strengthen and preserve the confidentiality and security of the stored data in a manner that will encourage other parties to store their data there,” the Minister said.

Hon. Stella Ndabeni-Abrahams

Be resilient and steadfast, change will come.

We have just crossed the halfway mark of 2021 by celebrating one of the most memorable months of the year, June. It is a month that has etched itself in the history of our beautiful country and brought to the fore the power and ingenuity of the young people. It is a month that has earned recognition in South Africa as the Youth Month.

Although we continue to find ourselves in difficult times due to the COVID-19 pandemic, not all is lost. For many, the month of June represents the halfway stop for the year, a time to reflect on progress made in the achievement of goals set out at the beginning of the year. It is an opportunity to reassess, correct and redouble efforts to make the year a success.

For team DCDT, it was a busy month, a month of change, new ventures, and the realisation of many a dream. The year 2021 has continued presenting enormous challenges to a number of sectors of the economy with education being one of the main challenges for governments and leaders across the world because of the global pandemic. Like never before, digital platforms have continued to redefine and anchor the world of work, education and entertainment.

For many young South Africans, this year's commemoration of June 16 took place under a sombre atmosphere. According to Statistics South Africa's Quarterly Labour Force Survey (QLFS), the rate of young people aged 15 – 34 years who were not in employment, education or training in the first quarter of 2021 rose by 0,6% to a staggering 43,6% compared to the last quarter of 2020. With South Africa punted to have the highest number of unemployed youth in the world, we must open up ourselves to the idea that there always lies an opportunity in the problems we currently face.

Team DCDT and its entities remain committed to the skilling and reskilling of youth, which is seen through the work that entities such as NEMISA, ZADNA, and the Film and Publications Board (FPB) do daily. As many of you may know, I started my career as a High School Educator, and children and their safety will always have a special place in my heart.



And it is for this very reason that the Films and Publications Amendment Act remains at the forefront of all my engagements with both learners and parents. The law was passed to protect all of our country's children from disturbing and harmful content.

Most importantly, it provides regulatory certainty on the mandate of the Film and Publications Board for distributors of films and games online, and on traditional platforms of content distribution. We all have a part to play in ensuring the success of this law. This is a crucial piece of legislation for us as a government, to keep South Africa's children, and to keep YOU – safe online.

As we enter July, the Mandela Month, I would like us to keep a few things in mind. Firstly, never lose hope no matter how dire the situation may present itself to be. Secondly, embrace change even if it takes you out of your comfort zone. Last and most importantly, keep up the good work - you are doing a great job.

Till we meet again. PK

Hon. Piny Kefawa

A Digital Government for Enhanced Service Delivery



Mr. Mlindi Mashologu
DDG: ICT
Society & Capacity Development
Department of Communications &
Digital Technologies

The Department of Communications and Digital Technologies has an e-Government strategy that was approved in 2017. The implementation of this strategy is being expedited looking on the challenges that have been brought by the COVID-19 pandemic. The Organisation for Economic Development's (OECD)' definition of e-Government is "the use of ICTs, and particularly the Internet, to achieve better governance".

This requires any government implementing e-government to increasingly put services online. This has often not significantly changed structures and back-office processes designed at a time when the focus was on achieving better operational efficiencies within specific policy domains and this has been the case on our environment.

The emergence of new digital technologies to enable Fourth Industrial Revolution (4IR) which include plethora of smartphones, social media platforms, as well as new approaches in using technologies like Big Data, Internet of Things (IoT), Artificial Intelligence (AI) Robotics and Machine Learning (ML) offer diverse collaborative ways of working within and across Government Departments, systems, machines and better ways for citizen engagement.

This approach would be able to help our government to become not only more effective and efficient, but also more open, accountable and transparent to its citizens. The uptake of these new digital technologies requires a paradigm shift from e-government to digital government approach.

OECD further defines the Digital Government as "the use of digital technologies, as an integrated part of government's modernisation strategies, to create public value which relies on a digital government ecosystem comprised of government systems and processes, businesses, non-governmental organisations, and citizens which supports the production of and access to data, services and content through interactions with the government"

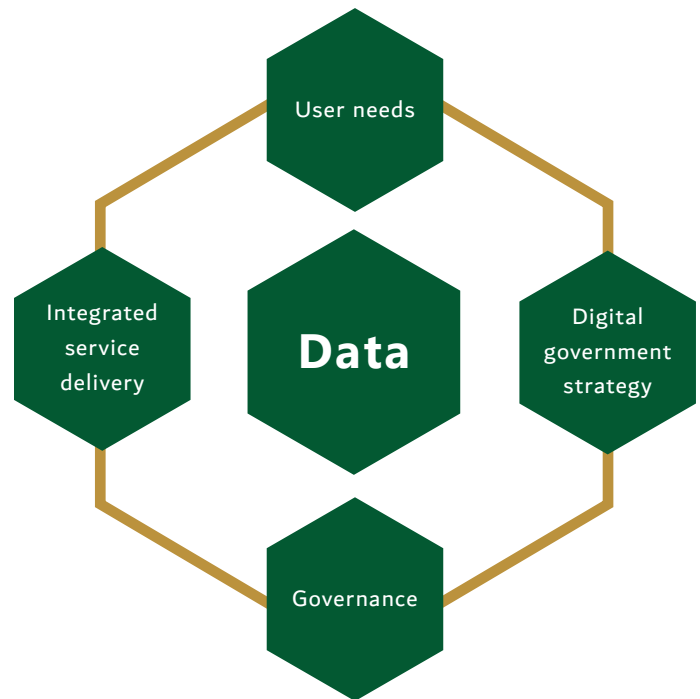


Figure 1: **Data as a Catalyst for Digital Government**

The Concept of Digital Government

The digital government concept represents a fundamental shift in the way any government is embracing the service delivery imperatives from setting measurable administrative goals to improving public service delivery looking on the following critical aspects:

- Making use of data-driven decisions to passing evidence-based policies;
- Ensuring greater transparency and accountability within government to build greater public trust.

If the above aspects are adhered to; this means that the adoption of digitalization would help government to leveraging on the power of Information Communications Technologies (ICTs) in a transformative way.

As the Digital Government derive its inputs from huge streams of data, the result is that the provision of public services becomes more focused as granular understanding of the changes in the needs of citizens, allowing for a highly individualized and targeted delivery of services.

This can be made possible by digital tools and systems that establish a direct communication channel to every citizen, allowing government to uniquely address each citizen's needs, and develop tailored plans for communities, municipalities, districts etc.

Thus, services to citizens will constantly transform and become available depending on individual constraints. Digital government is about new ways of delivering public value and making services and government procedures digital by design. This requires integrating ICTs in the public sector agenda right from its conceptualisation.



Figure 2: Digital Government Framework

One of the critical fundamentals for providing contextual services is for data to be open and interoperable. This does not take away the need for protection of personal Information Act (POPIA), cyber security, as well as ensuring that data is securely stored as highlighted in our Draft Cloud and Data Policy. The use of open Application Programming Interfaces (APIs) to enable easy access and integration to different data repositories would, for instance, allow a deeper and richer understanding of the individual context.

The example of a digital citizen facing service that shows the need of integration of various data sources would be a citizen applying for a social grant, a contextualized response would require integration of data at minimum from the following departmental databases:

- Home Affairs (to verify if the person is alive),
- Education (to see if the person is not receiving any study grant),
- Department of Labour (to see if the person is not on any employment);
- Department of Justice and Correctional Services (to see if the person is not incarcerated).

The massive corruption that was uncovered by the Auditor General in 2020 showed how dis-integrated government systems can result in massive fraud and corruption. The processes and systems in a Digital Government need to be well-aligned with each other to allow for the development of an integrated platform for public services which would ensure that duplication is minimized amongst various government departments, remove silo'ed integration and encourages the sharing of capabilities across various sectors. This then requires government to adopt common standards and architectures in the implementation of the digitized service offerings to its citizens.

Success Factors for Digital Government Any move of approach in a program of this magnitude requires clearly quantifiable set of success factors which include at minimum the following:

- Connecting government institutions and citizens to enable digital transformation. Digital government relies on key digital infrastructure, such as access to ICTs by public institutions and society and particularly high-quality broadband connectivity.
- Improving the supply, quality, and uptake of digital government services. As Government faces increasing, multi-faceted challenges both in maximising digital government policies and projects and delivering high quality public services efficiently and equitably to all segments of the population, the update of these services become an absolute need.
- Open up government data and improve data and information reuse across the public sector. Digital government, particularly when supporting more openness in government processes, allows for an improved exchange and use of data, information, and ideas among public institutions, and facilitates innovations that translate into new and more efficient services and innovative services.

Making data and information available, easily accessible and reusable offers governments the opportunity to engage with citizens in innovative collaboration schemes that can help create public value. This is also one of the recommendations from the PC4IR report.

The COVID-19 pandemic has shown us that there is an urgent need to expedite digitalization of government. The e-Government program needs to be upgraded to a Digital Government which will ensure that we leverage on the available data to make more informed decisions on service delivery as well as policy making.

The analysis above shows that if Digital Government is implemented efficiently, it will enhance service delivery, public value and provide trust and transparency to the citizens that we serve. Also, the delivery of Digital Government will ensure the following aspects:

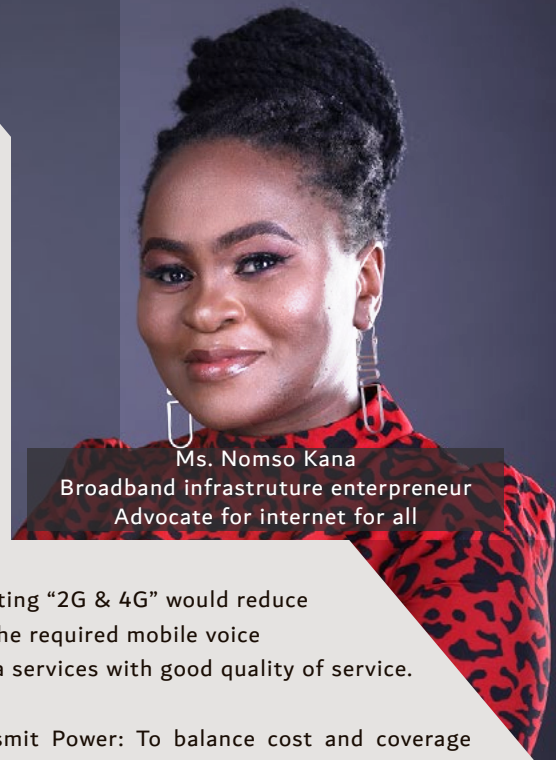
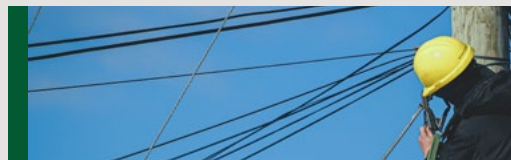
- Increased citizen participation;
- Better collaboration amongst government departments, business, and citizens;
- Improved online user experience for citizens;
- Enhanced innovation;
- Improved internal efficiency and productivity;
- Unified ICT systems for government while reducing cost;
- Reduction in fraud and corruption;
- Workflow management.

The adoption of Digital government is no longer a nice to have but rather a critical necessity.

MOBILE BROADBAND FOR RURAL CONNECTIVITY



Sun 'n Shield Technologies



Ms. Nomso Kana
Broadband infrastructure entrepreneur
Advocate for internet for all

A qualitative study by the United Nations revealed that almost half of the world's population (44.3%) live in rural areas, within that study it shared that 63% of the Southern Africa has been classified as rural. In these challenging times of the contact less / COVID-19 pandemic, connectivity is more needed than before, as it can support distance education, healthcare, and the economy. One can imagine the digital connectivity gap that the pandemic has created and widened.

Globally, the past 10 years there have been novel communication solutions, trying to address the needs of rural connectivity especially in developing and under-developing countries. These range from jaw-dropping solutions such as tethered and free floating balloons to circling solar powered high altitude aircraft, targeting rural mass areas. However mobile telecommunications need tried and tested solutions that can be deployed in communities today! The main factors that hinder mobile telcos in not reaching holistic rural connectivity:

1. Investment challenges that mobile telcos face in rolling out last-mile connectivity.
2. On-grid electrical infrastructure gap between rural, urban communities and metro cities South Africa population is largely youthful with a median age of 25, and half of the population resides in townships, informal settlements and in rural areas.

This is the populace that holds the 88% mobile penetration in the country and mobile internet connectivity is an economic multiplier that can transform peri-urban and rural communities. According to the World Bank report, 10% increase in broadband penetration boosts gross domestic products growth by 1.38% in emerging markets. In rural areas, it is stretching and sometimes uneconomic to deploy fixed line broadband due to the spatial allocations and housing proximities, fixed to wireless are significantly easier to deploy. Government and non- government organizations supports the rationale that mobile broadband is best suited for rural communities.

For example, the Department of Communication and Digital Technologies (DCDT) posture of spectrum policy and release such as the TV white spaces and WOAN to ensure amicable spectrum resources are made available to enable an ease of mobile broadband rollouts and bridge the digital connectivity gap. For the past 5 years, a collaborative effect between infrastructure vendors is yielding favourable results, all major vendors have developed a cost effective solutions with these fundamental key criteria, though not cast in stone:

- Fully Support Mobile Broadband Connectivity: Internet access is vital in these economic times therefore "pure" 2G cannot satisfy the requirement. 3G or 4G is the only viable option. A

single radio supporting "2G & 4G" would reduce costs and provide the required mobile voice and broadband data services with good quality of service.

- Reasonable Transmit Power: To balance cost and coverage Ideally high transmit power such as 40 Watt (W)/60 W is the best bet. A hybrid combination of solar powered and on grid solutions are needed for countries like South Africa due to unreliable electricity.

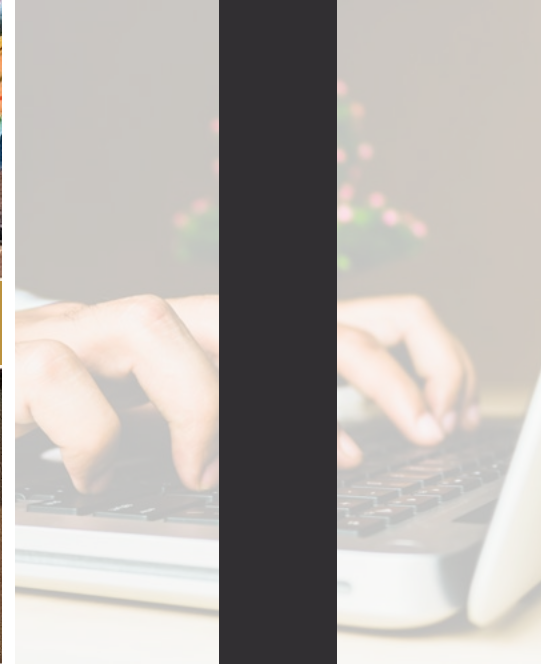
- Easy to Deploy and Low-Cost Long-Distance Backhaul: Fibre optics and microwave links backhaul might have limitations in rural community settings. Mobile telecommunications need low cost backhaul, using equipment such as LTE relay equipment goes a long way in rural communities. What is LTE Relay? LTE relay uses the operators' existing cellular band resources and supports Non-Line of Sight transmissions. Therefore, operators do not need to invest in additional backhaul spectrum resources for rural communities however in some instance TV white spaces spectrum comes in handy in the case of South African rural communities in Limpopo, KwaZulu Natal, Eastern Cape and North West.

- Prevent Theft and Vandalism: A sore thumb issue for telcos is the theft and vandalism of telco equipment, anti-theft mechanisms must be put in place to protect the equipment. Anti-theft ways such as sms based notifications to warn telcos, customized nuts and bolts that is challenging for thieves to remove with common maintenance tools, lobby the community to look after the equipment as they highly benefit and lastly use security code based modules that can disable the battery to help deter theft.

In many emerging markets, rural connectivity faces several engineering, logistical, and economic challenges. It has been proven that mobile Internet connectivity is an economic multiplier that can transform rural communities and inclusion of every LSM is important in the digital economy. Innovative deploying strategies for rural communities, technology innovation and product optimization can solve the broadband connectivity gap and achieving a mutual investment cycle that benefits rural communities.



Ms Sonwabise Mzinyathi:
SA Women in ICT Forum
Chairperson



“FROM SUPPORT TO CORE: WOMEN, YOUTH AND PEOPLE WITH DISABILITIES PARTICIPATION IN THE ICT VALUE CHAIN”

The under representation of women, youth and more especially people with disabilities in the ICT sector cannot be underestimated. We have to be deliberate and intentional about the targeted approach we are taking to ensure the active participation of this group in the digital economy.

Statistics that come from various transformation reports including the B-BBEE ICT Sector Council's Annual Monitoring Report are underwhelming to say the least. As a sector, we struggle to meet even the bare minimum, it can't be that as a country with the history that we have, we are still talking about inequality as opposed to acting towards systematic solutions to diversity, equity and inclusion in order to deliver technology innovations that will ultimately form the basis of the Capable4IR Army levels that we seek attain.

Over and over again, you hear from companies how they struggle to find SMMEs to join their supply chain, struggle to find women for technical roles, the youth is always being developed -never ready - and as result, we get further and further away from achieving our transformation targets.

The Leaky Pipeline Report by Syson Kunda from the Ping Academy in partnership with the Black IT Forum, SA Women in ICT Forum and Precisional Growth reflects that there are more men compared to women reported in technical roles in the IT workforce and that generally, roles such as computer systems designers, analysts and computer programmers in the IT workforce in South Africa are reserved for men; with only an estimated 23.93% of women employed as computer programmers. The report also shows that there are more men in leadership positions in the ICT sector in South Africa. Only 26.92% women were in leadership roles in ICT in 2020.

What's more, is that even junior roles are mostly occupied by men. Only 18% of women are doing AI research in South Africa, 24% are in Cybersecurity, and only 19% are in managerial roles. What is even more disheartening is the fact that only 17% of ICT students are female.

A report by Siemens revealed that the adoption of digitalisation in industrial sectors, ranging from transport to manufacturing, could potentially add R4 trillion to the African economy by 2026- all of which are industries that will be fully enabled by ICT. The report highlights that South Africa, because of its bulging youth population, has the highest potential to drive this innovation. Many of our youth; however, are feeling despondent and discouraged by the seemingly lack of opportunities, support such as sponsored enterprises and even when they do innovate, their innovations fall into the ether.

ICTs are tools through which young people can substantially contribute to, participate in and leverage their social and economic development. Connected to each other like never before because of technology, young people want to contribute to their communities, propose innovative solutions and drive social progress and change.

As early adopters of ICTs, young people are uniquely placed to harness the power of digital technologies in new and imaginative ways. However, youth participation in the ICT value chain remains low. In 2019, 58% of our youth were unemployed. In Diepsloot alone, sits a staggering 52% youth unemployment rate.

The potential for ICTs to support youth development and to drive inclusive participation by women and people with disabilities is significant but for many across our country, it remains a theory; mainly because of five main reasons:

First, Connectivity. A first access barrier for using ICTs is connectivity or the lack thereof. In many rural areas, the basic infrastructure for ICT access is not yet present.

Second, Awareness. Even if there is basic access and connectivity, not everyone understands what a mobile phone or the internet can do for them, how to use a mobile phone for something other than a phone call and a text, the kinds of information and services that can be accessed or delivered through a mobile phone or over the internet, or how this information can be used to improve lives and livelihoods.

Many people in our country, especially those living in rural areas may not have ever heard of some of the mobile applications people living in the cities use on a daily basis. The unfortunate truth is that many people in our country know of the internet but have never used it.

Third, Affordability. The combined cost of a handset, airtime, mobile data services, charging and electricity is infamously high in South Africa, especially for those living under \$2 a day. **Fourth, Relevance.** Information and content that we make available is not always consumable either in language or user-experience, wording being masculine, and people with disabilities are often not catered for. This is why it is important to have diverse teams.

And lastly **Attainability.** Even if the other barriers to access have been resolved, socio-economic and cultural issues such as gender discrimination or negative attitudes about women, youth, and people with disabilities impact on the effective use of ICTs.

These barriers mean that many youth, people with disabilities and women are not able to make full use of the potential of ICTs for their own development and when we do drive efforts towards changing this narrative, we continue to be presented with solutions such as low-level technical roles, non-strategic support and not to mention the perpetual training.

This has to change. In their speeches during the Department of Communication and Digital Technologies' Budget Vote Addresses, we heard from both the Minister and Deputy Minister interventions that are currently being implemented to fast track the inclusive growth of the sector and more specifically policy directives that will propel the participation of women, youth and people with disabilities.

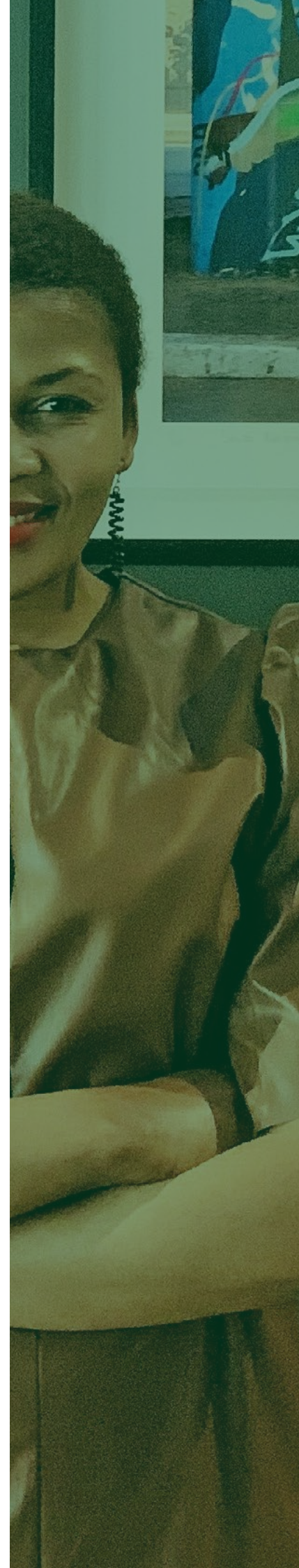
Further, the Department of Communications and Digital Technologies posits that together with its agencies, various opportunities for women, youth and people with disabilities are in fact being prioritised. For example, the Department's ICT SMME Development Strategy aims to facilitate effective entry and participation of youth, women and people with disabilities into the mainstream ICT sector and as digital entrepreneurs. Further, the Department has committed to ensure that 40% of procurement spend is allocated to SMMEs. In addition, through various interventions, the B-BBEE ICT Sector Council will soon publish the Amended ICT Sector Code which will provide for 50% target procurement from majority Black owned suppliers, an increase from 40%.

It is now up to us as industry, to ensure that we too are playing our part to implement tangible deliverables to ensure that women, youth and people with disabilities are afforded, not just participation in the ICT Value Chain, but equitable economic participation.

About the Author:

Sonwabise is the Chair of the SA Women in ICT Forum and Deputy Chair of the B-BBEE ICT Sector Council. She started her career in diplomacy and was posted as a Diplomat representing South Africa in New Delhi, India. She left diplomacy to join corporate and has worked for PR agencies, tech and FinTech companies including TBWA's Magna Carta, Cisco, and Refinitiv - a London Stock Exchange Business. Currently, she is a market lead for global policy and government affairs at Global Citizen.

She is a Trustee on the Cisco Charitable Foundation Trust and the Policy Co-Chair of the SA Coalition for Menstrual Health Management. She is a founder and co-owner of several companies all geared towards using technology to address social ills. Sonwabise is also a 2021 Young African Leader Initiative (YALI) Fellow.



4IR key in Accelerating Socio-economic Development



Ms. Nomvuyiso Batyi
DDG: PC4IR PMO
Department of Communications & Digital Technologies

The youth of today is presented with opportunities brought by the Fourth Industrial Revolution (4IR) and requires them to be fully equipped with the essential digital skills. These essential skills would empower young people to contribute to the digital economy and addressing other pressing issues that are facing our country, including poverty and unemployment.

In this digital era, to succeed in the ever-changing entrepreneurship and workplace, people require skills-sets that would align them with the change.

The amplified complexities of modern governance magnified by the digital revolution necessitate that all spheres of government to function effectively with co-operation with one another. However, if South Africa and the African continent are to take advantage of the opportunities presented by 4IR, collaboration is necessary.

For South Africa to be at the forefront and leading country in the continent in the 4IR it needs to be innovative and develop technical solutions that addresses challenges in the country, while empowering civil society to be aligned and reap the benefits of this revolution. The above is mandatory especially if South Africa wants to play a role in global competitiveness.

The 4IR has an ability to accelerate socio-economic development as it possesses cutting-edge technologies that can speed-up service delivery and production of any sector. Thus, it is important to comprehend the key elements of 4IR and prioritise them accordingly.

1. The importance of 5G Technology

The importance of 5g network cannot be overstated, in the midst of this pandemic and in the 4IR era. The network development needs to continue to improve the lives of people to ensure the better connectivity. Having to live in the information age that is expedited by the covid-19 pandemic, fast connectivity is imperative, as working remotely becomes a norm.

It is therefore the reason, Communications and Digital Technologies Minister, Stella Ndabeni-Abrahams, has announced that R27 billion has been pledged by operators and vendors to usher in 5G fibre technologies in South Africa. This has been done through pledged and partnerships with relevant stakeholders.

The partnership and collaboration is key to take the ICT sector into greater heights, especially in this pandemic. Connectivity is central in enabling people to be innovative and bridge the digital divide in society.

This is vital in the digital era, thus the Minister of the Department of Communications and Digital Technologies (DCCT) is rolling-out fibre to underserved and disadvantaged rural areas to bridge the digital divide and for all to participate in the digital economy.

It should be noted that, to date, government has switched off 40% of the planned sites in the three priority provinces of the Free State, Northern Cape and North West. This digital migration also presents young people with an opportunity for young people to innovate and contribute in broadcasting content of our country.

2. Role of Digital Skills in the Digital Era

A lot has changed in this 4IR era, the transformation requires rapid flexibility and adoption in order to align with the information age. The influx of the COVID-19 pandemic has proliferated the use of the 4IR technologies and requires vast upskilling of people with critical and key skills.

Digital skills are at the centre of the department's interest, to equip young people and empower the civil society to be aligned with the 4IR era. It is due to this reason that, the department has partnered with MICT SETA to train 1000 young people in 3D printing, data science and related programs.

The department has also delved deeper and established partnership to train young and unemployed people on key necessary skills. The National Electronic Media Institute of South Africa (NEMISA) and Coursera is training more than 50 000 young people on 4IR related programs.

This is to equip young people with the relevant skills such as AI, data science, IoT, drone, blockchain, Big-data, cloud computing, cybersecurity amongst other key 4IR skills. These skills are critical for the digital era and would enable our young people to be entrepreneurs and be self-sufficient and create jobs for themselves and for their peers.

Through the partnership with GIZ estimated at R49 million, the Department will train 3000 young South Africans and support 150 SMMEs for Future of Work. The department is also working with the Department of Employment and Labour, to train 73 000 unemployed youth.

The aim is to ensure that young people are equipped with digital skills and get as more information as necessary to become self-sustained and develop solutions that are contextualized to the issue of the country and the continent.

The partnerships that are outlined above have the prospects of equipping young people with the skills that will give them a foothold in today's fast evolving and competitive labour market. This shows the role the department is playing in eradicating poverty, unemployment and inequality in the country.



THERE'S NO 4IR WITHOUT INTERNET ACCESS

In this modern era characterized by rapid technological advancements that are affecting almost every area of the economy, society and culture. Nobody can argue against the fact that having no internet connection at home, via mobile or at work has become tantamount to a violation of basic human rights.

Internet access is as crucial in today's industrial revolution as electricity was in the 2nd industrial revolution. In this era of Big Data, machine learning, artificial intelligence, and the internet of things, broadband connectivity plays a very vital role in our lives.

“ Out of 193 countries across the globe, South Africa ranks at 26, with 56% of our population having access to the internet through mostly their mobile devices. In as much as, according to Stats SA, 56% of South Africa's population has internet access, this access comes at a relatively high cost, leaving the majority of South Africans in the periphery of the digital divide. ”

According to a publication by Cable.co.uk data from 6 148 mobile data plans in 230 countries were gathered and analysed and based on the reports' findings South Africa is ranked 136 out of 226 countries worldwide for its mobile data pricing in a study based on the cost of 1 gigabyte (1GB) of mobile data. As much as our mobile penetration, and access rate is quite a good story to tell, the cost of data to access the internet meaningfully remains relatively high and therefore exclusionary.

According to the World Bank in their digital dividends report of 2016, the study concludes that a 10 percentage point increase in fixed broadband penetration would increase GDP growth by 1.21% in developed economies and 1.38% in developing ones. ,

South Africa as a developing nation stands to benefit from a much needed 1.38% growth in the gross domestic product should it increase its broadband internet penetration rate by a mere 10% over the next financial year. Expanding our broadband infrastructure to allow every single individual, from every corner of society in South Africa to gain access to reliable and affordable internet access broadens the economic opportunities that may potentially solve some of our socio-economic ills like high youth unemployment. Due to our low broadband penetration rate and the low numbers of people accessing the internet mostly at home, e-commerce has not had the same growth trajectory as China and the United States. This connectivity gap deprives us of thousands of jobs



Mr. Luvo Grey
Chairperson of ICT Youth Council

that could be created by the growth of e-commerce. CISCO predicts that by 2030 there will be 25,4 billion internet of things devices connected to the internet. This is an entirely new global value chain being created and internet access is at the centre of it all. Without adequate internet infrastructure, we will not be able to take advantages of the spoils that come with the 4th Industrial revolution. Should we not act accordingly, we will continue being a guinea pig republic for foreign technologies.

The Covid-19 pandemic has laid bare the existential digital inequalities in South Africa. We witnessed our education system being completely disrupted for learners in disadvantaged communities, and there being no chaotic curricula disruption in private schools where the rich and middle class attend.

Those that had access to the internet were not disadvantaged as much; instead, they were exposed to a more efficient model of delivering education which is through the various e-learning platforms that are available today. The video conferencing industry grew by a massive amount, seeing companies like Zoom increasing their sales by an unprecedented 40%. We can no longer ignore the growing calls by young people across South Africa to bridge the growing digital divide. Young people have taken it upon themselves to define the future that they want, a future where everyone has equal access to the internet, where your earning capability or class group doesn't determine whether you can access the internet or not.

As of today the digital economy serves only the privileged and is heavily excluding the have not's who are in their majority in rural and township communities. Without having the majority of South Africans connected to the internet we won't experience the full potential of 4IR technologies because they are driven by data, and data is driven and mostly collected using interconnected networks (Internet). Most of these 4IR technologies sit on top of the internet.

How do we solve the connectivity problem?

Government and the private sector need to collaborate and urgently build digital infrastructure focusing on the below.



1. Fibre in the ocean

There is a 37000 Kilometres long cable called 2Africa – which will be connecting Europe to the Middle East and 16 African countries. One of those 16 African countries is South Africa.

The likes of Facebook are playing their role, of course, their motives may be debatable, but this will lead to the improvement of connectivity in South Africa due to the fact these organisations are not in the business of providing connectivity, they are rather in the data business, and the more South Africans on the internet the higher the number on their platforms, therefore, the higher their revenues. This therefore further reiterates the importance of Data policies in our country. Google has also announced its own subsea cable connecting Europe to Africa in 2019, using the route down the west coast.

Africa is expected to come into the country by 2024 and will deliver more than the combined capacity of all sub-sea cables serving Africa. We need to incentivise companies such as Facebook and Google for such investments as this will inevitably decrease the cost of data to the consumer.

2. Fibre on land and Unlicensed Spectrum

Broadband Infracore has over 14000KM of Fibre which covers most of the provinces in South Africa and covers most rural areas. This is an opportunity to build youth-owned community networks enabled by the vast BBI network to service the many young people in rural and township communities who are yet to be connected.

A joint collaborative approach between Broadband Infracore, Sentech and local youth, women and disabled cooperatives must be utilized in order to expedite the deployment of last-mile connectivity to rural and township communities. Throughout history, it has been evident that when communities have a sense of ownership on an asset meant to develop the community they have gone past their way to protect it. Building community-based networks doesn't need

us to wait any longer, we can start building them tomorrow as there is no lengthy licensing process that is required. We can leverage existing class licenses while we wait for ICASA to issue class licenses to the cooperative applicants.

Should funding not be available, community members may Network Stokfels where they collectively contribute on a monthly basis to purchase base stations, microwave radios and routers. Once the core network is up and running, the communities would be able to deploy public Wi-Fi hotspots where the youth can purchase unlimited Wi-Fi bundles from as little as R5 a day, similar to the model we are providing as EC Internet in the township communities of the Eastern Cape. We are quite privileged to have such state-owned entities in our country and we should exploit the possibilities that they provide and creatively work together.

3. Fibre connecting to people at home

Fibre is potentially the most critical component of all telecommunications infrastructure in South Africa, and without further deployment, the country might not be able to fully participate or even enter the 5G race as we talk about the fiberisation of 5G. According to the FTTX Council as of 2019, about 1.5 million endpoints had been passed, with a total of 496000 homes that are connected and billed, and over 114000 business premises. As impressive as these numbers are we still have a long way to go till we have fibre deployed to the closest high sights near the township and rural areas, as we all know fibre backhaul is the best backhaul a WISP can utilise in order to provide the best quality of service in particular in underserved areas which are in their majority dominated by the youth who need connectivity.

Fibre providers are not going to build fibre in townships and rural areas, well not anytime soon because they don't deem our communities as areas where they can get a quick ROI to their investments. The Development Bank of South Africa needs to make available

funds (debt or grants) for youth-owned Wireless Internet Service Providers so that they can build fibre infrastructure in townships.

4. Licensed Spectrum and the Wholesale Open Access Network (WOAN)

There's been quite a lot of debate surrounding the licensing of the high demand frequency spectrum. The first time South Africa licensed off spectrum was in 1993 when MTN and Vodacom were granted licenses to operate and were granted licenses in the 900MHZ band which was utilised mostly for voice.

Twenty-Six (26) years later we still have the same two dominant operators in South Africa servicing 73% of the market share. When Minister of Communications and Digital Communications, the Honorable Stella Ndabeni-Abrahams released a policy directive on spectrum allocation early in 2019 as young people in the Telecommunications value chain we celebrated because we took this as an opportunity to build our own Mobile Network Operators wholly owned by women, youth and disabled individuals. This is what the NEW DAWN meant to us, it meant that finally, we can provide reliable and affordable internet services in townships and rural areas.

The further directive and policy to introduce licensing of the Wholesale Open Access Network was a further reason to celebrate as young people. The WOAN is said to be owned by 70% of South Africans which include women, youth and persons with disabilities.

Licensing of the Wholesale Open Access Network will be reducing the pricing of mobile data, and the majority of South Africans will benefit. In as much as there are delays in the licensing process I am quite positive that the spin-offs that will come out of this licensing process will not only be transformative, they will also benefit ordinary South African in townships and rural areas. Should we focus on the above we will be well on our way to move the needle and bridging the digital divide for the benefit of all South Africans.

THE 5G ECONOMY AND JOB CREATION



Ms. Juanita Clark
Digital Council Africa
CEO

Globally the telecommunication industry has achieved dramatic growth in the last decade and even more so since the onset of the pandemic. What used to be the quiet engine of the economy is now receiving everyone's full attention. Now, with 5G on the horizon it is safe to assume that it is going to be as significant as the change caused by electricity and automobiles.

The telecommunication industry is extraordinarily different from other sectors as it has significant influence over all sectors and therefore also the economic development of countries. 5G, because of its low latency and high throughput, won't just be an evolution in technology, but a revolution.

Now more than ever it is critically important for governments to understand how this fundamental shift in technology will impact the broader economy, especially at a moment when COVID-19 has caused significant economic disruption and massive job losses.

It is widely accepted the 5G will give rise to mass automation and will further exasperate job losses, but do we really know how the 5G economy will behave? To have a better view there are some key questions we need to ask:

What sectors are most threatened by digital transformation/ automation? and then we need to understand what those job losses are likely to look like e.g how many jobs are we likely to lose? Then we need to understand how 5G will impact sectors and what jobs we can create?

Will they be focused around traditional urban cities like Joburg, Cape Town and Durban, or create new opportunities geographically across the nation? What kinds of jobs will be created?

How ready are we to capitalise on these jobs? Is our education eco system geared towards creating scientists and engineers that will be able to use this technology and create the digital Africa that we need?

And very importantly should we provide job training to ensure that workers can meet the opportunity?

Ultimately these question culminate in a single question: Do we have a clear strategy across our sectors that can answer the above questions and do we have a plan?

Already the 5G job revolution has begun. Globally large mobile providers are building out new networks across the country. Network companies are competing for the best skill as product vendors are hiring 5G system architects, Radio Access Network (RAN) engineers, 5G solution architects, and technical managers in the 5G space.

At home, the liberalisation of the telecommunications market in South Africa has accelerated the growth of the industry in the past decade, reduced prices and deliver higher QoS, and a move towards a service based product offering, away from a monopolistic and state-controlled sector.

Nowhere is this more evident than in the rise of the fibre optic infrastructure market in South Africa just more than a decade ago. A decade ago broadband infrastructure investment was heavily focused on following the most economically active areas and corridors, JHB – CT and DBN but many companies have already moved to Tier 2 and Tier 3 towns across our county and today town such as Polokwane, Mbombela, Emalaheni and even smaller towns like Bethlehem and Ermelo have access to fibre. This growth is driven by:

- Need for geographically diverse routes from metro areas to smaller towns.
 - Pent up demand for high-speed broadband (consumer and corporate) especially with WFH.
 - Release of additional wireless broadband spectrum (LTE)
 - The adoption of next generation mobile networks such as 5G
- Over the last decade the fibre optic industry has opened the window for many new and developing entrepreneurs to enter the market. However, the development of entrepreneurship remains a critical aspect of developing a sustainable market.

More importantly entrepreneurship in an economically distressed time can yield important social benefits over and above short-term private returns. Self-employment can offer solutions to those whose efforts in the mainstream economy have been frustrated. Developing entrepreneurial skills in the telecommunications sector can help meet explicit social goals, but government has a key role to play and must mobilise funds and support for entrepreneurial Incubators and set up specific Incubators to develop skills in especially under serviced areas.

When considering the densification requirements of 5G we believe that on top of the thousands of jobs the sector has already created through direct and indirect jobs, particularly pertaining to the physical deployment of infrastructure – it has the potential to create thousands more.

As with all industries these jobs are across the skills spectrum and range from highly skilled individuals to lower skill levels opening up the sector to diverse job creation.

In spite of the opportunity the sector poses and the amount of jobless people in the country, there remains a job deficit mainly due to lack of available skills. If one considers the debate around the growth in the industry through the deployment of fibre to meet the requirements of 5G we agree this number could drastically increase.

Whilst it is too early to have an intensely accurate numbers the Digital Council estimates that a 6 -8 fold densification is needed to ensure that required speeds are met. Therefore, it is safe to assume that the jobs deficit must be multiplied by a similar model if the next generation of mobile technology is to be achieved, which will result in a mass skills shortage in the fixed line infrastructure sector.

As an imperative element of telecommunication, 5G and fibre optic infrastructure will play a significant role in job creation over the next 5 – 10 years. In addition, the combination of access to high speed infrastructure and the Covid19 pandemic has given rise to the 4th industrial revolution.

On a global scale, artificial intelligence (AI) will generate 2.3 million jobs, exceeding the 1.8 million that it will wipe out according to a report by Gartner. In the following five years to 2025, net new jobs created in relation to AI will reach 2 million.

For South Africa to capitalise on this new sector we need to have access to these skills, shifting the conversation to reskilling. Even before 5G took hold, we started seeing automation increases in productivity devastating jobs and it is true that it will continue, but 5G will also create jobs.

Globally there will be millions of jobs building and maintaining the networks needed and thousands of jobs building and maintaining the machines. One of the profiles that will

be positively impacted due to the adoption of advanced technology will be software professionals.

In fact, there has been a steady increase in demand for software talent from the industry. In 2019, the telecom industry witnessed a 10% increase in demand for software professionals. This demand was largely spearheaded by telecom OEMs (Original Equipment Manufacturers) & IT system integrators.

Hiring in the areas of cloud and core, OSS (Operations Support System) and analytics have also witnessed an increasing interest. Further, as most of the operators have migrated to cloud, it has also resulted in generating job opportunities particularly in the areas of data migration assignments as well.

The sector is expected to see a further spike in demand, around 10-15%, especially due to the adoption of 5G.

Some of the skills that will see a greater uptake are Artificial Intelligence, Machine Learning, Natural Language Processing, OpenStack, Dockers, Kubernetes, Information security, Long Term Evolution (LTE) Advanced, S/W SON (Software Self Organizing Networks), C-RAN (Cloud or Centralized Radio Access Network), Massive MIMO (Multiple Input – Multiple Output), Millimeter Wave (mmWave), Network Functions Virtualization (NFV), Software Defined Networks (SDN), Network slicing and IOT (Internet Of Things).

The adoption of newer technologies will not only act as a positive catalyst for opportunities in the telecom sector, it will have a ripple effect across industries and opens up the door for graduates to up-skill and make themselves ready for the opportunities coming their way from a sector which is showing guaranteed growth and earning potential.

At the end of the day the telecommunications sector will be the highest employment provider in the world. There will be occupations we've never thought of, creating content and applications we can't imagine, most of whom will require skills, some of which haven't been invented yet working on jobs that don't even have names yet.

Are we ready South Africa?

Remember The Unforgettable

Bafana Bafana, 1996 AFCON Champions
"Our unforgettable African dream"



Brand New SABC Sports Channel Launch.

Ensuring universal access to South African sports broadcasting remains a priority.

The South African Broadcasting Corporation (SABC) has officially launched its sports channel, following the successful soft launch of the 24-hour channel on the SABC DTT service and the TelkomOne mobile streaming platform in April 2021. Minister of Communications and Digital Technologies, Ms Stella Ndabeni- Abrahams together with Deputy Minister, Ms Pinky Kekana were in attendance. Minister Ndabeni- Abrahams emphasised universal access to South African sports broadcasting as a priority.

"We view the broadcasting of sporting events as a type of popular cultural output alongside drama, comedy, film and music that has the power to bring about socio-cultural benefits, social cohesion and nation-building efforts of our government", said Minister Ndabeni-Abrahams.

In the past six months, the SABC sports channel has entered into the Over-the-Top (OTT) live-streaming platform through the TelkomONE media service. Last week we celebrated the sports channel on yet another digital platform, the Openview Direct to Home (DTH) satellite-distributed free-to-air (FTA) platform.



This means that the SABC Sports Channel is now available to audiences across several digital services – DTT, OTT and DTH, ensuring that all South Africans can access great sports content subscription-free wherever they are and whenever they want.

“The significance of this channel in the context of the country’s digital transformation is profound. Through the SABC Sports Channel on OpenView, South African audiences are being driven to the digital migration process, assisting citizens in moving quickly into the digital space”, added Minister Ndabeni- Abrahams

Since the Channel became operational in April this year, its audience figures have been positive, with the latest TAMS figure showing a total reach of over 2 million, a 5 % share of the National Television Market.

The SABC sports Channel aims to provide compelling and exciting local and international sporting content for all sports-loving South Africans.





**“Building a capable
Fourth Industrial Revolution(4IR)
army”**

...

Deputy Minister toasts Avvatta's entrance into online streaming.

The Deputy Minister of Communications and Digital Technologies, Ms Pinky Kekana officiated the introduction of a newly formed black females-only online viewing and gaming platform, Avvatta on Friday, 25 June 2021 in Johannesburg.

Founded as Digital Media 333(DM333) by former Cell C CEO Surie Ramasary and Director Prabhakar Manikonda in 2020, the company has ventured into the highly competitive online streaming platform dominated by overseas companies.

"The entertainment industry has long been waiting for this technological injection to bridge the gap created by Covid-19 since most aspects of the entertainment industry relied on physical attendance at events to bring in their profits. The pasts eighteen months have negatively impacted the business sector in general and the entertainment industry, in particular. We have seen theatres, halls and stadiums closing. This resulted in the entertainment sector losing revenue because of the restrictions on public gatherings and movement from one place to another within the country and abroad." the Deputy Minister said.

She further applauded the two women for their ground-breaking initiative which will provide South Africans as well as African artists with a platform to showcase their work despite challenges thrown by the deadly Covid-19 pandemic.

Over-the-top (OTT) video content is becoming the most important way that people watch movies nowadays. Its revenue earnings in United States of America (USA) was well over \$20b in

2017 and recently recorded a 15% rise. Price Cooper Waterhouse (PWC) predicts that revenue incomes will rise to \$30.2b by 2022.

The DM emphasized the need for local investors to take up space in the digital technology sector and compete with international establishments like Netflix, Showcase, Hulu, and Disney+. This will assist local artists to get their projects across the world and increase their earnings.

Avvattar will be offering its services here at home and in several African countries such as Nigeria as well as Ghana and will offer popular titles from Bollywood, Nollywood, Gollywood, Korean, Spanish and French cinemas with English subtitles.

Other content which will be included on Avvatta includes gaming, e-learning, and coding. The e-learning offering will allow students to learn among others, science, maths, geography and offer social skills.

In wishing Surie and her team well, the DM said, "It is a cut-throat world of online entertainment that you are entering. I wish you all success and hope that you will inspire more women to venture into the digital and technology space."





MAKERTHON INNOVATIVE TECHNOLOGIES EXPO UNEARTH'S HIDDEN TECHNO GEMS IN KZN

On the 15th of June 2021, Minister of Communications and Digital Technologies Stella-Ndabeni Abrahams officiated the opening of the Makerthon Innovation Challenge held at the Richards Bay Techno Centre in KwaZulu Natal.

The event coincided with the 45th-Anniversary commemoration of the 16th of June 1976 massacre of unarmed black students by the apartheid government. The Minister Ndabeni-Abrahams was accompanied by several high-ranking officials from the department and board chairpersons from its respective entities.

This KZN innovation Expo was a collaboration between the Department of Communications and Digital Technologies and the ICT Youth Council, affording an opportunity for unknown innovators, marketers, and developers to be discovered. They were handed an opportunity to identify, source as well as develop low-tech and inexpensive hardware solutions to address key social challenges to enable the environment with up-to-date technologies. The Expo attracted a huge turnout, with most schools in the KwaZulu-Natal Province (KZN) sending representatives.

Young innovators came in large numbers to showcase their latest innovations and prototypes as they were required to find solutions in automation design, safety, monitoring, efficiency as well as climate related issues. They worked overnight at the Techno Hub centre designing, as well as refining their prototypes with hopes of coming up with solutions on how society can be transformed with the help of their latest technologies.

Ndabeni-Abrahams urged students to create projects and initiatives that will enable a society with digital skills and called on young people to embrace modern digital technologies and build better innovations that will come in handy in this era of the Fourth Industrial Revolution.

The Minister called on the youth to make use of basic building blocks provided by the government through education to maximize key policy objectives and unlock innovative entrepreneurship.

"We need to embrace software development, 3D skills and prototype innovators for further development that will contribute to the digital economy especially now that we are in this pandemic because most services are carried out digitally." said Ndabeni-Abrahams.

KZN entrepreneurs, Shemar Stuart (24) and Sabelo Gabela (26) showcased their innovation to create an entirely connected continent - where everyone, everywhere is connected. They co-own Prime Tech, a digital technology company based in the province.

"We intend to connect the world through this device that we have developed. The Prime. It enables people to stream, curated, content for free - without the need for data," they said in unison.

"The innovation was born out of the desire to enrich local artists and to increase local content consumption as well as assist them to connect with their fans worldwide". "We realized that the biggest barrier to achieving this was the high cost of data - so we decided to eliminate the problem and created a data-less solution that allows us to give the content directly to the people - thus increasing local content consumption and ensuring that our local creatives thrive and succeed." said Stuart.

According to Stuart, they developed their app because there are way too many apps out there and they are all data consuming and expensive for ordinary citizens hence they decided to create theirs specifically for local consumers.

They will further develop a Wi-Fi router that does not need to be paid for data to operate. "Developing a data less router will enable users to access information without the use of data, this will be helpful to allow people to stream content online without the use of data which is becoming more expensive by the day" continued Stuart.

"We intending to provide technology that will be able to speak to South Africans and the continent because we feel Western developers don't have us in mind when they develop new technologies. We have a bold vision of being the most dominant tech company in Africa and we have already started making that possible." Gabela added.



Richards Bay Primary School's, Nqubeko Gumede (12) proved that dynamite comes in small packages when he unveiled a his smart walking stick for the blind in society. The stick uses GPS and works at the press of a button and sends a notification to a relative/partner. It will also come in handy to those with dog fur allergies as it will eliminate the usage of guide dogs.

"My design will assist people who are physically challenged and have poor eyesight. It will assist them to navigate their ways without the assistance of guide dogs or other human beings". said Gumede.

For the Expo to be a success, the Department of Communications and Digital Technologies worked hand in glove with the National Youth ICT Council as well as the AlgoAtWork Robotics Academy to uncover young hidden techno-innovators that will help transform the lives of ordinary South Africans and be the new Nkosana Makathe or Mark Shuttleworth or even surpass Elon Musk.





YOUTH MASTERCLASS

On the 15th June 2021, the Department of Communications and Digital Technologies in partnership with Government Communications and Information System hosted a virtual youth masterclass on digital skills development opportunities.

The purpose of the masterclass was to commemorate the 45th anniversary of the 16th of June 1976 massacre of defenceless youth of South Africa who stood up and fought for their rights.

“We are here in KwaZulu Natal hosting the Makerthon Innovators Tech Expo in Richards Bay. We are virtually gathered on these platforms to celebrate youth month under the theme “The year of Charlotte Makgomo Maxeke: Growing youth employment for an inclusive and transformed economy”.

Minister Ndabeni-Abrahams called on business leaders and the youth to work together to find solutions to unemployment. “What can we expect the future labour market to look like? What skills and competencies are in demand? These are some of the questions that pre-occupy government and private sector,” she added.

There are enormous shifts in recruitments based on much sought-after skills across all industries as well as geographies. The outbreak of the Coronavirus has led to a massive growth of e-services across the globe, leading to a creation of new career opportunities that transide geographical boundaries, eliminating the

digital divide and exclusion. The Minister went on to say “There is a consensus that digital skills are going to be critical for future jobs that will be generated by the newly established digital economy brought forward by the advent of the Forth Industrial Revolution (4IR), expedited by Covid-19 pandemic that has changed the way we do things.

Ndabeni-Abrahams outlined several departments initiatives to encourage investments in youth as well as partnerships with various stakeholders. Youth training programs have already been launched and will absorb many youths and train them in digital technologies related courses.

New career choices are being established as people are trained in Artificial Intelligence (AI), Internet of Things (IoT), Data Science, Blockchain etc.

The Minister outlined a number of technological advancement initiatives driven by her department in collaboration with various institutions and private sector companies. These will equip students with the necessary digital skills to enable them to have a foothold in the highly competitive job market.

“Our training programs will be conducted across the country in order to allow everyone to participate. We want to see innovation from every corner of the country.” the Minister said.



Minister Ndabeni-Abrahams adds weight to the Pan African Postal Union Conference.

The Pan African Postal Union (PAPU) held its 10th Plenipotentiary Conference in the resort town of Victoria Falls in Zimbabwe on the 24th and 25th of June 2021.

The hybrid event, allowed for both physical and on-line participation to cater for delegates who could not attend physically because of Covid-19 affecting the globe.

The meeting took place against the backdrop of the majestic Mosi oa Tunya the 'Smoke that Thunders', which vividly describes the thunderous fall of large volumes of water from the Zambezi River down the river gorge creating a misty and smoky vapour. Victoria Falls was as one of the Seven natural wonders by the United Nations Educational Scientific and Cultural Organisation (UNESCO). Members of various African countries meet every four years to map out strategies and challenges faced by the continents postal sector.

The sector is facing stiff competition from private players who have taken over the services from state owned players as well as from newly established e-commerce entities. Minister of Communications and Digital Technologies, Stella Ndabeni-Abrahams represented South Africa with aplomb. Ndabeni-Abrahams presented a paper narrating about the country's readiness to embrace and implement challenges offered by the advent of the Fourth Industrial Revolution(4IR).

In her address, she spoke of government plans to empower the citizens through various digital and technological endeavours like training thousands of scholars in information technology and internet usage.

Delegates including the leadership of the United Nations Universal Postal Union (UNUPU) and representatives from the African Union (AU), shared ideas on their vision for the future role of the continental postal union. Participants emphasised the need for the postal community to embrace the new digital economy brought in the 4IR and to establish innovative ideas on developing new products and services to respond to the ever-changing customer's needs.

Delegates also agreed to work together so that the postal sector remains an important component in the development of a progressive African society, working in tandem with everyone in the world. African governments must contribute to the implementation of the African Digital Transformation Strategy and embrace modern information and communication technologies. This calls for nations to embrace modern digital technologies to improve the level of service delivery as well as



better the lives of people in the continent.”It is essential to bring together all stakeholders in the postal community to create a vibrant and innovative postal service in Africa. This is meant to develop strong African postal services, especially in areas such as e-commerce, postal financial services, as well as using the postal network for the delivery of government services.” the Minister said.

The Pan African Postal Union (PAPU) has ensured to continue its contribution in fighting the Covid 19 by providing people with all the necessary digital skills to community social development. As PAPU identified postal network efficiency, logistics, parcel deliveries as some key challenges constraining cross border countries.

Postal contribution to social development can be improved and strengthened if the postal services are ready to deepen and accelerate compulsory efficiency towards digital culture. And to leverage the potential of Post Offices in Africa on digital transformation strategy adopted by African Union policy organs in Feb 2020 recognizes the Post Offices as part of digital transformation.

The policy was proposed as a solution to include rollout and strengthen of postal policies and facilitation of postal services for funding investment from infrastructure development and capacity building. The conference stipulated that now is the time to build stronger postal institutions across the continent to support the roll-out of e-commerce to every household in Africa. And also PAPU should focus on building African institutions and businesses in all sectors to improve the lives of our people and contribute to the regional economic integration through the African Continental Free Trade Area (ACFTA).

Pan African Postal Union (PAPU) delegates emphasised the critical role played by state owned postal agencies on the attainment of the African Union (AU) Agenda 2063 and the United Nations (UN) Sustainable Goals as agreed in past conferences. As the conference reached its business end, delegates elected Zimbabwe's Postmaster General Sifundo Chief Moyo as the new Secretary General and Ugandan Jessica Ssengooba as the Assistant Secretary General respectively. The Department of Communications and Digital Technologies together with the South African Post Office (SAPO), look forward to working with the new leadership of PAPU to build a better and more digitally connected African postal entities and strengthen regional integration. “This is our time to grow as Africans,” the Minister said.

Youth & Women Business Brunch.



“No matter the difficulties you face, remember one thing, and one thing onlyZITHANDE!” were some of the inspirational words of the Deputy Minister of Communications and Digital Technologies, Ms Pinky Kekana to the youth and women gathered at the Youth and Women in Business Brunch on 16 June 2021.

The event held as part of the annual Youth Day celebrations, was hosted in partnership with the Lungile Mtshotwana Foundation at the Fire & Ice Hotel in Cape Town under the theme “Enriching Lives Enriching Others”. It aimed to bring together youth and women in business with key industry and political leaders.

In attendance were Speaker of the Western Cape Provincial Legislature, Hon. Masizole Mngqasela, Member of the Western Cape Provincial Legislature, Hon. Nomi Nkondlo, CEO of Broadband Infraco, Mr. Andrew Matseke, CEO of ZADNA, Mr. Molehe Wesi, Chairperson of Women in ICT, Ms. Sonwabise Mzinyathi, Head of Marketing at Capitec Bank, Mr. Sbusiso Khumalo, among others.

The Deputy Minister paid tribute to the youth of 1976, who altered the future and broader trajectory of South African politics, by changing perspectives and creating a new lens. She spoke at length against the disregard of the challenges faced by the youth of today.

In her address, she expressed her desire to present to participants, a different perspective of youth unemployment. “It is quite a well-known global portrayal of the youth who are excluded from wage or salary work as being inactive, aimless and alienated from mainstream society. This misleading characterisation by a one-dimensional world of unemployment as “doing nothing” is not a feasible or realistic option for young people in South Africa today.

Research across Africa but especially in Kenya, Ethiopia, South Africa and Zimbabwe has revealed that the so-called unemployed

young people use a wide range of economic strategies and practices to create an income.” she said

“As we observe the Youth Day in South Africa, and the Day of the African Child from an Africa continental perspective, let me emphasize that ignoring the youth would be done at our peril. If the history of the youth’s contribution to our freedom, is anything to go by, women and youth across the continent and in our country are changing the perspective and creating a different lens to view employment and economic activity. It is unfortunate that we are using a traditional outdated lens and choose to turn a blind eye to the value of this thriving informal economy.” she stressed.

Innovation, collaboration, inclusion and representation of youth and women in all formal and informal sectors of the economy became the clarion call as each of the speakers elaborated on the theme for the day.

The CEO of Broadband Infraco, Mr. Andrew Matseke spoke at length on the weight of collaboration for those pursuing business within the digital technologies space, a view complemented by the CEO of .ZADNA, Mr. Molehe Wesi, who encouraged participants “to seek knowledge and develop foresight when entering new and different spaces”.

“I ask you as the youth to permit yourselves to think that this IS YOUR TIME NOW. I invite you to bring your disruption to the table of possibilities and progress by always changing your perspective, to change ours.” concluded the Deputy Minister.



Creating an enabling environment for the
provision of inclusive communication
services to all South Africans

Entity News



NEMISA Geek, Moeketsi Mokay Lebakeng announced as one of SA Top 15 Young Geeks.



NEMISA alumni Moeketsi Mokay Lebakeng has been announced as part of the 2021 South Africa's Top 15 Young Geeks by the youth tech giants Geekulcha. Annually, as part of celebrating June as the youth month in South Africa, Geekulcha names and honours 15 young people that have made their mark and are playing a colossal role in the ICT and tech space.

Geekulcha mainly focuses on capacitating and empowering young geeks through ICT development by creating a platform for innovation and creativity. Describing the Top 15 Geeks initiative in its website Geekulcha notes: "These are the minds marking their stamp and playing a greater role in the Digital Revolution.

These are Geeks who have been identified as being a role player in the transformation. One gets nominated and selected to be on the list based on the work they had been doing and contributing the SA tech ecosystem."

Speaking on being part of SA Top 15 Geeks Lebakeng said that he was very "chuffed" for being part of the elite list of young geeks in the country. The NEMISA Multimedia alumni that graduated in 2013 said: "Each year they open-up applications to anyone who feels they worthy of been a part of this list. I summed up my contribution and past work I've done for the different companies I've worked for and with and the rest is history. I was pretty chuffed, I had sort of forgotten about it since the applications were done way earlier in the year."

Lebakeng is a product designer with about nine years of experience. He makes a living from solving complex problems through the power of design. "NEMISA exposed me to a lot of things, came in wanting to design cool stuff and overtime realised I could add some value to business and help them build products with my skills and knowledge.



NEMISA | Alumni Moeketsi is among the top young geeks in SA

I have been lucky to work for a few corporates, three banks, a telecommunications company as well. "I'm a User Interface designer now transitioned into a product designer, I am not only concerned with how it looks but how it functions too and how users feel about using the product created. I use design to help businesses make more money in the same breath create digital products that fulfils the desired needs of their customers/clients," he said.

Asked on the importance of digital literacy and for young people to be tech savvy in the digital world we live in – the young and enthusiastic techie said that one has no choice but be digitally literate.

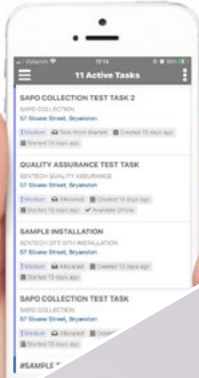
"Everything we do is centred around being digitally literate from smart appliances in our households, to education being virtual because of Covid-19, to people working from home, to being able to conduct yourself in any job. The world is at a point where even people whose jobs are not in digital or tech somehow need to interact with some sort of digital interface to help them to be more effective.

An example of this is how some doctors use a platform to help diagnose patient quickly by asking them what symptoms they have and populate that information into an app or platform and it helps narrow down what the patient could be suffering from," he added. His sentiments are echoed by NEMISA's mantra of "advancing digital skills for South Africa's future".

SENTECH DEVELOPS 'SENTECH INSTALL' APPLICATION.



App User Guide
Date: 09 April 2021



The Digital Migration project is one of Sentech's key strategic projects for this financial year. Sentech took the opportunity to fully digitize the installation and communications process for our appointed installers and South African citizens.

The Sentech install application is the first User Interactive Platform to connect installers and beneficiaries in a fully digital process. Due to the labor intensive nature of DTT migration, from a projects and quality assurance point of view, the Sentech Install application will be the main focal point of reporting, quality assurance and installation information geared to deliver at volumes of installations that needs to be completed in short period of time.

The benefits of the application would provide installers with a 360-degree view of all tasks assigned to them; provide proof of task completed with photos with a date and time stamp for validation. With this automated process, installers no longer need to call the Sentech call center to activate DTH decoders, the application has been integrated into

Sentech's conditional access network and can be done remotely through the application. Further enhancements such as an automated payment system for installed tasks are in the process of development, which will see installers paid timeously without administrative intervention.

Further to developing an installer application, Sentech implemented an Omnichannel environment for the call center. This will assist its call center staff to deal with a multitude of calls from its installers and South African Citizens.

This Omnichannel will give citizens various communications options with its call center i.e. telephone, WhatsApp and social media.

All these communications mediums will now have one entry point to the Sentech call center and in turn optimizing its response to various stakeholders within the migration value chain.

In order to ensure complete and transparent communication and data information between the installation application and the omnichannel,

the applications integrate to an "Enterprise Business" solution. The solutions orchestrate the collection of data from various parties such as the South African Post Office, Google maps and SAP into a data file, that is used by both applications which ensures data required by either application is from one accurate data source.

The "Enterprise Business" solution enables Sentech to develop various digital platforms for both inhouse as well as service a customer communication tool, and these developments will be shared as and when new applications has been developed and ready for commercialization.

Sentech is looking forward to develop a fully digital Sentech where information management is fully automated.

DTT Customer Services Channels:



WhatsApp |
072 196 8368 / 060 062 5458



Call Centre |
0860 736 832



Email |
support@sentech.co.za

Broadband Infraco's robust plan for Youth Development

“To ensure that we are able to make waves, government has committed itself to a skills revolution that will give us the human capital required in the digital economy”. These were the words uttered by President Cyril Ramaphosa during the Digital Economy Summit held on Friday, 5 July 2019, at Gallagher Convention Centre.



The global economy and society are undergoing a digital transformation (4IR) which offers enormous opportunities for growth, innovation and jobs. Equally, the Sustainable Development Goal 9 calls for Building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation.

Broadband Infraco is proud to be able to provide for the infrastructure skills as a foundation to this revolutionary work, as well as the future pipeline through the training of young people and skilling them to be competent and technically savvy leaders of tomorrow.

Broadband Infraco has continually heeded the President's call to action by prioritizing Youth development as an imperative of national significance.

This is of particular significance as Broadband Infraco offers an opportunity to develop those rare and hardcore technical skills that are required by the digital economy and foundational as this economy cannot function without infrastructure. This is fundamental to the achievement of the country's national developmental strategies.

As we commemorate the Youth Month, we cannot help but look back at the strides made by the organisation in intentionally contributing to the development of our youth. The Company has, for the past few years, implemented a succinct strategy and plan on the development of Youth through intensive and comprehensive Internship and Trainee programmes.

The multi-faceted programme entails a “Work Integrated Learning” programme for candidates who need 12 months' work experience to meet the requirements for the completion of their national diploma qualifications (referred to as P1 and P2).

There is also a programme for graduates who need to acquire work experience to improve their chances of employability,



which sets out formal training interventions to be completed, within the applicable period, to enhance their knowledge and skills, thereby preparing them for the world of work.

Over the past four (4) years, the Company has trained a total of 69 young individuals in different areas of the business (Network Engineering, Operations and Maintenance, NOC, IT, SHEQ, Finance, Audit, SCM, HR, Sales and Marketing, Risk).

This is a significant contribution from a Company with a total headcount of 155 employees. We are committed to doing more and look at all avenues where we increase our impact in this sphere, also looking at partnerships in order to scale the magnitude of the experience. “To improve and boost the employment equity ratio of the organisation, out of the total of 69, 35 are male and 34 are female, with 17 of the 34 of these females placed in male dominated environments, namely Operations and Maintenance, NOC and IT”.

It is a further indication that an organisation's contribution to skills development isn't determined by its size, but rather by the willingness to do much with the little that it has”, mentioned Acting HR Executive, Irene Mokgohloa. After satisfactory completion of their practical workplace exposure and upon obtaining their qualifications, the undergraduates are retained on an extended period for when opportunities for absorption into permanent positions exist and they would have the opportunity to be appointed following the outcome of a normal recruitment process.

Interns are assessed and if found suitable are transitioned to Trainee level in their respective areas of learning.



“Working as a female, Technician-in-Training in the Network Operation and Maintenance Department Upington Region has provided me with great experience that I will cherish throughout my career life.

My job entails, network maintenance and ensuring efficient connectivity and customer satisfaction. Working alongside my male counterparts, I attend to all faults relating to fibre and electrical issues, conduct required tests, install and configure systems to ensure that connectivity speed is as it should be”, said Prudence Lubeko.

“I’m so grateful for having been selected as an Engineer in Training for the past two (2) years. The training and experience gained since joining Broadband Infraco is of greater significance towards 4IR as there cannot be 4IR without network connectivity.

I’ve been exposed to projects such as SA Connect and the KZN DoE roll-out, both of which provide connectivity to facilities in underserved areas. This exposure has also inspired me to take a CCNA (Cisco Certified Network Associate) course and I’m now a certified associate.

I’m also currently enrolled in CCNP (Cisco Certified Network Professional) course which will, upon completion, enable me to design/plan, implement and troubleshoot the LAN and WAN networks. These are some of the skills which play a big role in this 4IR era”, added Teteki Maloka.

“I started at Broadband Infraco as an intern and have developed to a trainee in the Sales and Marketing department.

The company continues to invest in trainees by ensuring that we are equipped with essential skills and knowledge necessary to not only survive but thrive in the 4IR era.

From initial customer engagements, to finalizing documentation necessary for new business opportunities, my drive towards the digital space has grown.

The continuous training programs have further enhanced my capabilities, allowing for creativity and innovation. Broadband Infraco has heeded the call to address lack of digital literacy therefore responding to changes in the world due to covid 19 challenges. We are prepared to become the future entrepreneurs in the digital space”, said Tshgefotso Mokoma.

The Internship programme continues to be Broadband Infraco’s flagship project from which the company aims to benefit not only the building of human resources capacity for itself, but also provide an opportunity to feed into the pipeline of skills required within the Telecommunications industry at large.

The initiative also helps the Company to maximise benefits from the MICT SETA programme and increase participation in the national youth employment drive as well as the improvement of the company’s B-BBEE rating.

Broadband Infraco remains committed to playing a critical role in empowering the Youth citizenry in recognition of the key role they play.

We understand in practical ways that the seed we plant in training the Youth of today, will result in future successful business and economic opportunities.

In this regard, we have also observed that the interns and young graduates that BBI trains, are readily absorbed by major networks in the country, thus attesting to our professional and superior training that we afford the Youth of our country.

This is a humble civic role which BBI accepts in support of the Government objectives of generating sustainable job opportunities.

◀ Recap.

Mthatha goes digital



Communications and Digital Technologies Minister, Stella Ndabeni-Abrahams along with Eastern Cape Premier, Mr Lubabalo Oscar Mabuyane officially unveiled the first Innovation and Digital Skills Centre in Mthatha. The centre is supported by Liquid Intelligent Technologies South Africa.



According to Ndabeni-Abrahams, a key aspect of economic development and growth is the ability to enhance human capital development and creating an enabled environment that will benefit the society in this era of the Fourth Industrial Revolution (4IR).

Through this progressive initiative, rural communities will also have an opportunity to equip themselves with up-to-date technologies. The Innovation Digital Skills Centre (IDSC) will serve as a technological hub where youths and upcoming entrepreneurs can acquire digital skills to improve their businesses.

Say NO! to cyberbullying

The Department of Basic Education in partnership with Department of Communications and Digital Technologies hosted an online safety of children webinar. The intimate virtual engagement with learners sought to discuss risks related to the use of online and digital platforms. The webinar also aimed at exploring ways on how learners can protect themselves from cyberbullying, cyber assault, and sexual grooming.

The virtual session was part of a series of activities that support the government led violence and bullying prevention initiative. The initiative was supported by the multi-stakeholder Action Group for Violence Prevention and Child Protection.

The Department of Basic Education, the Department of Communications and Digital Technologies and partners will host an

ONLINE SAFETY OF CHILDREN WEBINAR

Cyber security and protection of children on digital, online and virtual platforms, including social media etiquette. Celebrating Youth Month in the Year of Charlotte Maxeke

Deputy-Minister Pinky Kekana

Date: Wednesday, 23 JUNE 2021
Time: 15:30 - 17:00
Facebook Livestream: Agape Youth Movement.

basic education
Department of Basic Education
REPUBLIC OF SOUTH AFRICA

communications & digital technologies
Department of Communications & Digital Technologies
REPUBLIC OF SOUTH AFRICA

unicef
for every child

agape

MEDIA

Publication Co-ordinators.

Mr. Sipiwo Nzawumbi
Mr. Frans Mthombeni

Contributors.

DDG. Mlindi Mashologu
DDG. Nomvuyiso Batyi
Mr. Luvo Grey
Ms. Juanita Clark
Ms. Nomso Kana
Ms. Sonwabise Mzinyathi
Mr. Mish Molakeng
Ms. Zandile Ngubeni
Mr. Lubabalo Sigonyela
NEMISA
SENTECH
BBI

Photographer.

Mr. Lerato Sepotokele

Designer

Mr. Mvelo Mathe

For content submissions email:
snzawumbi@dtps.gov.za

P
L
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Department of Communications & Digital Technologies



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