

For communications professionals in southern Africa

SOUTHERN AFRICAN WIRELESS

COMMUNICATIONS

JULY/AUGUST 2019

Volume 24 Number 2

- Advice on how to monetise an agile data network
- New Wi-Fi installations for business planes and a port
- Are 'smeature' phones a smart business move?



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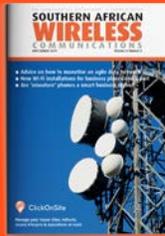
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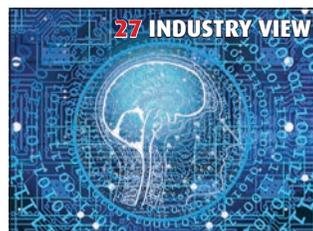
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Google wants partners for new Europe-Africa cable system

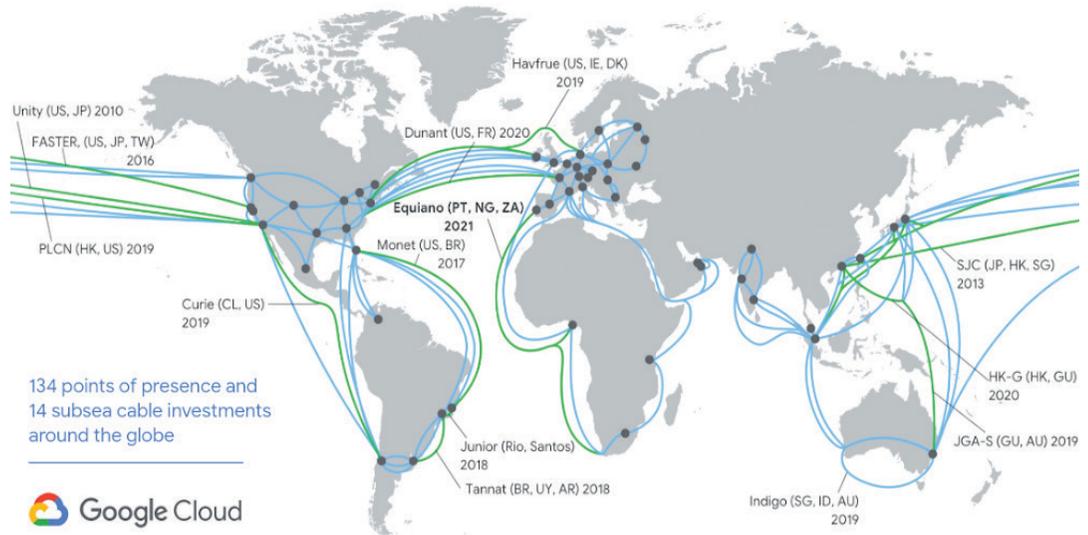
Google has unveiled plans for its new private subsea cable system that will connect Africa with Europe and is looking for partners to help link it up with various countries along the route.

Equiano will start in western Europe and run along the west coast of Africa, between Portugal and South Africa.

It will also incorporate branching units along the way, which can be used to extend connectivity to a number of African countries. The first branch will land in Nigeria.

Fully funded by Google, it is the internet giant's third private international cable after Dunant, which connects the US to France – and Curie, which connects Los Angeles, California with Valparaiso, Chile. It is also the company's 14th subsea cable investment globally.

Equiano is named after Olaudah Equiano, a Nigerian-born writer and abolitionist who was enslaved as a boy. Its infrastructure is based on space-division multiplexing (SDM) technology, which Google said means approximately 20 times



Equiano will be Google's third private international cable after Dunant, which connects the US to France - and Curie, which links Los Angeles, California with Valparaiso, Chile PHOTO: GOOGLE

more network capacity than the last cable built to serve the region.

Furthermore, Equiano will be the first subsea cable to incorporate optical switching at the fibre-pair level, rather than the traditional

approach of wavelength-level switching. Google said it greatly simplifies the allocation of cable capacity, giving it the flexibility to add and reallocate it in different locations as and when it is required.

Phase one of the project, connecting South Africa with Portugal, is expected to be completed in 2021. A contract to build it with Alcatel Submarine Networks was signed late last year.

Global chooses Eutelsat to back up WAPP

Eutelsat Communications has entered into a multi-year C-band capacity contract with Global Technologies on its EUTELSAT 10A satellite, which will provide connectivity and communications for the West Africa Power Pool project (WAPP).

Established in 1999 by ECOWAS (Economic Community of West Africa States), WAPP aims at interconnecting the electricity power grids of 14 west African nations.

Global was awarded the telecommunications part of the project and will use EUTELSAT 10A's coverage of west Africa to monitor major power distribution sites across the region.

"After a successful partnership in Mauritania three-years-ago, we are delighted to be working alongside Global Technologies once again with assisting WAPP in achieving its ambitious shared

energy project in the west African region over the coming months," said Philippe Oliva, Eutelsat's chief commercial officer.

Jean-Paul Steinitz, chief executive officer at Global Technologies, added: "To support WAPP in its vision to promote and develop power generation and transmission infrastructures across west Africa, we have teamed up with Eutelsat to leverage the prime

capacity available on its EUTELSAT 10A satellite. "Thanks to Eutelsat's reliable and cost-effective satellite coverage of the region, GLOBAL Technologies will contribute to offer better and cheaper access to power for millions of people by delivering telecom infrastructure to connect the WAPP countries."

The completion of the new deal strengthens a successful partnership dating back to 2016.

Zimbabwean firms hike tariffs amid economic pressure

Mobile operators in Zimbabwe have increased data bundle tariffs in the face of continued economic pressure.

Telecel, NetOne and Econet confirmed an increase in operational costs due to, among other factors, having to run generators because of ongoing electricity outages, the erosion of the national currency and

rising inflation. The move comes at a time when more consumers are demanding data roll-over.

"Please be advised that NetOne will be adjusting data and SMS bundle prices effective August 8th, 2019. All other prices remain unchanged," the operator said to subscribers.

Under the new data bundle tariff

schedule, NetOne's night bundle now costs Z\$3 per 1GB, up from Z\$1 representing an increase of about 300% across the bundle offerings.

NetOne's weekly social media bundles have been pegged at Z\$3 for 90MB, while the Z\$5 weekly bundle will now offer 150MB.

Econet also notified subscribers

about an impending data tariff review.

"Please take note bundle prices for data and SMS will be reviewed effective August 9th, 2019," it said in a text sent to subscribers.

Amid increasing attention to data roll-over, industry regulator Potraz confirmed recently it was in talks with telecom firms regarding the matter.

Inmarsat partners with non-profit organisation to protect wildlife

UK satellite firm Inmarsat has partnered with a Washington DC non-profit called RESOLVE to put its satellites to work on behalf of endangered animals in Africa.

The latter has a technological approach to defending wildlife and has developed a system called TrailGuard AI, which Intel helped develop and is being funded and deployed by the Leonardo DiCaprio Foundation and National Geographic Society.

TrailGuard AI uses an AI-powered

camera to detect humans in nature reserves – with 97% accuracy – and instantly transmits images to park rangers' facilities. Inmarsat's solution relies on the its L-band, global, mobile satellite communications network to ensure the transmission of these images to rangers, overcoming the lack of reliable terrestrial connectivity in most remote nature reserves. TrailGuard AI utilises Inmarsat's mobile BGAN terminals, which connect to the units and can

withstand harsh environments.

"Wildlife poaching in Africa is at epidemic levels, but despite the best efforts of dedicated rangers, the large park boundaries and rough terrain mean that they often only find out about poaching when it's too late," said Dr. Eric Dinerstein, director of WildTech and the biodiversity and wildlife solutions program at RESOLVE. "The TrailGuard solution acts as an early warning system, transitioning ranger teams into fully mobile,

rapid-response units so that they can respond to would-be poachers and stop them in their tracks."

The system was first deployed in the Singita-Grumeti reserve in Tanzania in 2018. So far, it has resulted in the arrest of around 30 poachers, many of whom were caught with bushmeat. RESOLVE is hoping to deploy the system at strategic chokepoints it has identified within 100 African parks with high incidents of poaching.

Mauritian PM officially opens 'Safe City Project'

Mauritian prime minister Pravind Jugnauth officially opened the country's Safe City Project – a partnership between Mauritius Telecom (MT) and the nation's police force.

Security has long been a major issue for the island's inhabitants and the goal of this project is to ensure the protection of Mauritians and the thousands of tourists who visit the island every year, through the establishment of a network of intelligent CCTV cameras.

The initiative is above all a deterrent that will contribute to the lowering of the crime rate. MT has been working on the deployment of all the infra-

structure and equipment since 2017

The Safe City Project involves installing across the island: 4500 portable smart radios equipped with cameras and GPS (Smart radios trunked system). This equipment will be used by police officers operating in police stations across the country and placed in police vehicles and at the Traffic Branch. In addition, there will be 4000 HD cameras (3000 box cameras and 1000 domes cameras) spread over 2000 sites, 45 base stations, 4500 mobile terminals and 500 eLTE terminals that send video and images from the site to the control centre in real time.



The project is a partnership between Mauritius Telecom and the nation's police force

There will also be 75 intelligent control points for intelligent road monitoring, 300 ANPR checkpoints and 150 traffic surveillance cameras with functions such as traffic data collection and video recording.

Through the Safe City Project, Mauritius Telecom aims to deliver "a state-of-the-art, ultra-sophisticated, reliable and secure technological solution" to help the police better deal with public order issues.

'LEO, IoT and smart city tech to shape Africa's future'

Low earth orbit (LEO) satellite systems, IoT and smart city frameworks have been tipped to have a transformational impact on businesses in Africa within the next 10 years as well as spending.

This forms part of global research and advisory firm Gartner's 2019 ICT Hype Cycle, which has identified 24 key technologies and describes how they will impact business performance in Africa during the next 10 years. Gartner said seven of these technologies have entered 'the slope of enlightenment' and are climbing toward the plateau of productivity and 13 will mature within the next two to 10 years, and "have a transformational or high impact on businesses".

Speaking ahead of the market research and analysis firm's IT symposium/Xpo in Cape Town in September, Jeff Mann, research vice president at Gartner said when it comes to these technologies, the company generally describes them as "low moderate high transformational" meaning that the impact will vary from low level (impacting some users) to high impact (affecting all employees and creating new areas of business).

The report also found that while low earth orbit satellite systems are an emerging technology, they have reached the Peak of Inflated Expectations and will have a high business impact in the next five to 10 years in the continent.

"This technology is important for African countries as satellites can cover all remote or underserved geographies, providing the broadband connectivity critical to operating in remote areas in Africa," added Bill Menezes, senior principal analyst at Gartner.

Low earth orbit satellites can provide global broadband or narrowband voice and data network services to regions with little or no existing terrestrial or satellite coverage.

According to Gartner, organisations with current or planned business interests in remote or underserved areas in Africa should closely follow the development of these systems. They should also align narrowband and broadband connectivity requirements

that cannot currently be met in targeted areas (such as backhaul from remote cellular phone towers) with emerging LEO satellite technology capabilities and service availability.

Meanwhile, Gartner said that the hype surrounding the IoT has decreased from the highs of 2016 through 2018.

IoT will reach between 5% and 20% of its local target audience and is set to have a high business impact in the next five to 10 years.

Elsewhere, Gartner listed smart city development as an area of significant transformational business impact in the next two to five years – influenced by the advent of strategies to manage urbanisation.

Mauritius tops telecom rankings, with Algeria and SA in hot pursuit

Mauritius remains the top-ranking African country in the telecoms market, with Algeria and South Africa replacing Ghana and Tunisia in the top three.

That is according to new data from BuddeComm's Telecoms Maturity Index, which analyses the broadband, mobile and fixed line markets of a country on top of a range of economic parameters to rank it on a scale of one to 100 and compare it to its region.

Mauritius secured a Telecoms Maturity Index score of 49, followed by Algeria (43) and South Africa (34).

The Indian Ocean island nation's thriving tourism market has stimulated the broadband sector, while there is an extensive DSL infrastructure and operators have deployed fibre-based

services in a number of localities.

Mauritius Telecom invested R5.1bn to roll out fibre across the island. It is currently available to about 85% of the company's fixed broadband customer base.

In Algeria, Mobilis has contracted Huawei to aid its network migration to 5G. Mobile penetration is close



Mauritius secured a Telecoms Maturity Index score of 49

to 116% and mobile internet accounts for about 92% of all internet connections in the country.

Meanwhile, in South Africa, mobile penetration by early 2019 approached 169%. This was driven partly by the popularity of multiple card use and by the take-up of mobile broadband services. Mobile internet accounts for about 95% of all internet connections in the country.

Mobile telephony is still by far the dominant telecom service across the continent, accounting for more than 90% of all telephone lines. Mobile internet access also accounts for between 95% and 99% of all internet connections, as a result of the poor condition of fixed-line infrastructure in most markets.

American Tower buys out rival for US\$1.85bn

American Tower has agreed to buy Eaton Towers for US\$1.85bn including debt as it looks to expand its presence in the continent.

Both companies have a presence in Ghana and Kenya – amongst others – and the deal will allow the Boston-headquartered business to build more in Africa. The agreement will also generate about US\$260m in property revenue in the first year of ownership, the company said.

Although the global telecom tower market is dominated by local firms, American Tower wants to take advantage of fast-growing mobile phone usage and the rollout of high-speed 4G technology in Africa.

That is evidenced by the fact this is the US firm's second acquisition in Africa in the past year, after it agreed to buy more than 700 towers from Telkom Kenya. American Tower has approximately 170,000 sites in 17 countries worldwide.

In 2018, Eaton scrapped plans for an initial public offering in London and Johannesburg. The company, partly owned by Ethos Private Equity and Development Partners International, sought a valuation of about US\$2bn to fund its own expansion plans.

Rivals Helios Towers and IHS Towers also scrapped IPOs last year because investors were concerned about the risks involved in some of their markets. The latter said it was worried about the uncertain outcome of Nigeria's presidential election, which took place in February 2019.

Spacecom launches AMOS-17 satellite to boost connectivity in Africa

Spacecom, the Israeli operator of the AMOS satellite fleet, has successfully launched its AMOS-17.

The 6.5-ton AMOS-17 will provide HTS beams from 17°E orbital position and is designed with the technical capabilities, including C-band, Ka-band and Ku-band, to meet Africa's demand for fast, reliable communication.

Built by Boeing, AMOS-17's advanced digital payload will enable a combination of broad regional

beams and high throughput spot beams to maximise throughput and spectral efficiency.

It will also offer connectivity spanning Africa, the Middle East, Europe, India, China and Brazil.

"AMOS-17 places us directly into the exciting growth of Africa's Sub-Saharan vibrant markets," said David Pollack, chief executive officer and president of Spacecom. He added that the company is

introducing the most technologically advanced satellite with HTS beams "to service Africa where AMOS-17 will deliver a large selection of services to a variety of broadcast, broadband and telecom clients".

Prior to the launch, Spacecom signed a deal with Nigerian broadcaster IDS Africa to use AMOS-17 to broadcast Channels TV across Nigeria and to the Nigerian diaspora in Europe.

Africell launches virtual SIM in DR Congo

Africell subscribers in the Democratic Republic of the Congo can now avoid the laborious process of restoring their contact directory following SIM card loss after the service provider launched a virtual one.

As of July 18th, the computerised chip or eSIM will make sure contacts are stored directly on a virtual platform such as Google Drive or iCloud.

"With eSIM, you have the possibility to scan several of your numbers and use the number you want in each country or under each circumstance," said chief executive officer (CEO) Milad Khairalla. "You can put two numbers or up to 10 numbers on your phone. You can also send a SIM to your close relatives, even abroad, very easily."

To send eSIM to a relative,

Africell's CEO said customers just need to purchase an eSIM with a QR code – currently offered free of charge in the telecom operator's shops under certain conditions – and send it to the recipient. The latter will only have to scan the QR Code to obtain an eSIM on their phone. Now, the virtual chip will allow the recipient to make and receive calls as well as use data.



Both companies currently have a presence in Africa PHOTO: AMERICAN TOWER

Google introduces new products and tools for African consumers

Google has introduced a raft of new products and tools designed to help consumers in Rwanda and pledged an additional US\$4m towards youth development.

The US giant used its Google for Nigeria event to unveil a dedicated travel mode in Google Maps to provide directions and navigation for motorcycles. It will be made available in Rwanda, Benin Republic, Ghana, Nigeria, Togo and Uganda.

In addition, Google launched navigation instructions in a Nigerian voice for both motorcycle and car driving modes.

"In the next few months, Google will introduce a new directions experience for Lagos that is optimised for informal transit, bringing Danfo routes into Google Maps," the firm said in a statement. "To help make

it easier to visually explore places in Nigeria, Google is publishing more panoramic imagery on Street View. Starting with imagery of Lagos two years ago, today Google added Street View imagery of Abuja, Benin City, Enugu and Ibadan – with almost 12 thousand kilometres of roads added."

Furthermore, Google has partnered with the Nigerian government to make an online safety curriculum available to all schoolchildren in the country.

In 2017, the company committed to train 10 million people in Africa on digital skills over five years.

Today, according to the internet giant, four million people have been trained, including 15,000 developers.

"We hope that the products and updates we're announcing today will make Google even more



Google unveiled a dedicated travel mode in Google Maps to provide navigation for motorcycles in Nigeria. It will also be made available in Rwanda, Benin Republic, Ghana, Togo and Uganda

helpful for fuelling people's hustles and getting things done," said Google Nigeria country director Juliet Ehimaun Chiazor. "We

remain committed to bringing the transformational power of technology to everyone in Nigeria and Africa as a whole."

The wait continues for SA operators

South Africa's department of telecommunications has again delayed its 'policy direction' on licensing unassigned high-demand radio frequency spectrum.

In her departmental budget speech on July 11th, communications minister Stella Ndabeni-Abrahams promised that an announcement would be made within the 'next seven working days'.

However, on July 19th, the Independent Communications Authority of South Africa (Icasa) said that the policy direction was still not ready for publication.

"The Ministry of Communications and Digital Technologies advises that the Policy Direction on Unassigned High Demand Spectrum has been finalised and is going through the requisite processes prior to publication," it said. "Further communication in this regard will be made in due course."

No further information was provided as to what these 'processes' are, when further announcements would be made, or why Icasa was publishing this statement on behalf of the minister.

Zambia denies WSJ's Huawei claims

Zambia and Uganda have denied a recent Wall Street Journal (WSJ) report claiming that Huawei assisted the governments of these countries in espionage campaigns that targeted political opponents.

An online story said employees at the Chinese tech giant enabled

both governments to monitor the movements, social media activity and other communications of key opposition figures.

However, the report said that there was no evidence that Huawei executives in China were aware of or sanctioned the alleged espionage activities of its

employees in these countries.

A spokesperson for the Zambian government said the WSJ was "malicious," and the government "refute[s] it with the contempt it deserves."

A Ugandan spokesperson for the president dismissed the accusations in the report as "totally false".

The embattled Chinese firm sent a legal letter of demand to the WSJ over the publication's coverage of Huawei's alleged involvement with government cybersecurity forces in Zambia, Uganda and Algeria. The letter accused it of damaging its reputation by publishing "false and misleading information" and added that Huawei "would be happy to discuss" the matter further.

Meanwhile, the US commerce department said it has added more than 45 new businesses associated with Huawei to an export blacklist.

At the same time, the department said it would renew a temporary general licence that permits companies in the US to sell products to Huawei on a limited basis, such as to provide security updates to Huawei devices. The renewal will last for 90 days and went into effect on Monday August 19th.



An online story said employees at the Chinese tech giant enabled both governments to monitor the movements, social media activity and other communications of key opposition figures

Eskom brings power to Zimbabwe

Zimbabwe has seen improved power following the recent electricity import deal struck with South African power supply firm Eskom.

The deal, confirmed by Zimbabwe's minister of information Monica Mutsvangwa, is expected to be a major shot in the arm for the country and specifically the telecom sector due to the country's history of powercuts.

The country's minister of ICT

Kazembe Kazembe said he is now expecting telecom network challenges to ease on the back of the improved power supply situation.

"Telecommunication base stations depend on power supply," Kazembe said. "Power interruptions due to load-shedding had an adverse effect on our base stations, resulting in poor mobile and internet networks in sectors such as banking, agriculture, mining,

among others. For telecom base stations to relay data to each other, all of them need adequate power supply ... owing to interrupted power (supplies) the base stations could not complete their circle of information transfers, although this is now expected to ease."

Zimbabwe also recently suffered disruption to data, mobile money and telecom services on the Econet network. EcoCash is said to be the

largest and most used mobile financial service platform in the country.

Following the increased operating costs owing to running and maintaining diesel generators, the Posts and Telecommunications Regulatory Authority of Zimbabwe recently approved a tariff increase for voice telephony services.

Econet said it requires US\$60m to migrate its base stations from electricity to solar power.

WhatsApp available on KaiStore

KaiOS Technologies has made WhatsApp available for download in the KaiStore making available to hundreds of millions of Africans using both 512MB and 256MB RAM devices.

The Facebook-owned messaging service was first launched on the KaiOS-powered JioPhone in India in September 2018 and now with the broad release, the app will reach millions of new users across Africa, Europe, the Americas and Asia.

KaiOS-powered smart feature phones are a new category of mobile devices that combine the affordability of a feature phone with the essential features of a smartphone.

"KaiOS has been a critical partner in helping us bring private messaging to smart feature phones around the world," said Matt Idema, chief operating officer of WhatsApp.

"Providing WhatsApp on KaiOS helps bridge the digital gap to connect friends and family in a simple, reliable and secure way." By Q3, most smart feature phones powered by KaiOS will have WhatsApp pre-installed upon shipment.



WhatsApp was first launched on KaiOS phones in India in September 2018

Malawi regulator to introduce new law against import of poor quality devices

Malawi Communications Regulatory Authority (MACRA) said it will introduce a law to stop the import of ICT devices that do not comply with international standards.

The new rules, mainly targeting importers, will list all standards to bring products into the country in accordance with regulatory, technical and minimum safety requirements.

Dan Chiwoni, who heads up MACRA's legal department, said this is an urgent matter in regard to the new challenges facing consumers and the country of Malawi caused by lack of appropriate regulation.

Poor quality of service, hacking and data theft, health and environmental risks are all



The new rules will list all standards to bring products into the country in accordance with regulatory, technical and minimum safety requirements

threats that the telecom watchdog wants to stop before they spread further. The law on conformity and interoperability will be added to

a series of technical mechanisms for quality control of ICT devices already adopted by the national telecoms market police.

SA networks may be forced to drop prices

South Africa's Competition Commission (CC) has welcomed the government's new spectrum policy and has pledged that customers will experience better coverage and lower data prices.

The CC said in a statement that it backed the department of communication's plans to establish a wireless open access network (WOAN) and offer high demand spectrum to smaller players.

"At a time when public finances are under such pressure, it is tempting to try (to) maximise revenues by simply auctioning spectrum to the highest bidder," the CC said. "However, as the data market inquiry provisional recommendations counselled, such short-term thinking would deny South

Africa a unique opportunity to bring about lower data costs both now and in the future. High demand spectrum is a scarce national resource and its allocation should be done in a manner which ultimately benefits the citizens of the country," it said.

The CC added that it would continue to be engaged with the spectrum licensing process as the new policy takes shape.

"This may include obligations to ensure affordable data prices immediately, but also how relative allocations between operators may shape competition going forward into new generation networks such as 5G," it said. "It will also include measures to ensure the commercial and competi-

tive success of the WOAN, avoiding some of the difficulties faced by other late entrants, as well as appropriate regulatory oversight of that entity."

The CC published a provisional market inquiry published in April, in which it said that international benchmarking confirmed that South African data prices are high – particularly for mobile prepaid data. It also said that existing data prices were "anti-poor" and "lack transparency" – and recommended that South African telecom firms address the problem.

It recommended that networks should also reduce the price of sub-1GB bundles to within range of an "objectively justifiable and socially defensible range of the 1GB price".

Vodacom to wind down 2G network

South Africa's Vodacom is planning to turn off its 2G network, the operator's chief technology officer told a press conference.

Andries Delpoort said the company would not be able to switch off entirely, as it is still used for some applications.

However, the intention is to deactivate the 2G consumer voice segment to devote this frequency spectrum to improve its coverage and 4G capacity.

"The big benefit for us to re-form 2G is to improve 4G coverage. If we can thin out 2G, it will allow us to use 900 MHz for 4G," said Delpoort.

Vodacom is not the only telecom operator that plans to stop 2G services to boost 4G. In July 2018, Telkom announced the same intention in order to focus on more innovative services offering more financial opportunities.

Vodacom and Telkom have chosen to optimise and reallocate their 2G resources in view of the lack of spectrum available for South African mobile networks.

Tanzania: telecom companies helping SMEs, says GSM report

Telecom firms are now providing major business opportunities to small and medium enterprises (SMEs) sector in Tanzania, according to a Digital transformation report by GSM.

It found that telecoms are enhancing the growth of these businesses, in a sector that spans over three million of them and contributes to over 25% of the country's gross domestic product (GDP).

The report said the telecom sector is now about more than just making a call, sending text messages and accessing the internet. Today they are advertising their services, completing money transactions, paying various services and bills as well as facilitating loans and insurance services, amongst others.

"Communication is crucial to a business society, therefore we must support this sector as it continues to grow," the report said.



The report said the telecom sector is now about more than just making a call, sending text messages and accessing the internet

GSM took Tigo as an example of being the first network company to sign up to the Tanzanian government's "e-payment gateway" under its mobile money brand, Tigo Pesa service, to ensure that it is easier for businesses to pay their bills to public authorities.

The firm also initiated apps such as the Tigo Pesa app, which supports businesses in collecting payments.

"Customers can pay for their transactions using their mobile money app and even pay their employees too using the app," the

report continued. "It is reported that over 70,000 companies are using Tigo's services in this regard.

The report further found that Tanzanians also use Tigo Pesa to access loans to support their businesses as well as deal with other financial issues.

Tigo has also launched a WhatsApp service for all its customers, including businesses. It allows users to quickly get in touch with customer services with any queries and to receive a speedy response.

Botswana police arrest 10 for possession of tower batteries

Police in Botswana arrested nine Zimbabwean men and a Motswana after the suspects were found in possession of 15 mobile communication tower batteries belonging to different companies.

Nunu Lesetedi, senior assistant commissioner, Botswana Police service, confirmed the arrest of the 10 men who were in possession of network batteries at a police roadblock in Dibete.

"The suspects comprised nine



Tower batteries can fetch as much as US\$2,000 on the black market

Zimbabwean male citizens and one Motswana male citizen aged between 37 and 42 years who were intercepted on their way from Gaborone to the north," Lesetedi said. "The suspects are still in police custody while investigations are continuing."

Cases of vandalism of communication network equipment and infrastructure in Botswana are said to be on the increase with thieves targeting batteries and copper cables for resell.

A battery taken from a communication tower is thought to fetch as much as US\$2,000 on the black market.

Communities, individual customers and small businesses in affected areas are reported to be struggling to access mobile telephone networks as well as banking services as a result of the damage battery theft causes the entire network infrastructure.

Potraz fires starting gun on base station bids

The Postal and Telecommunications Regulatory Authority of Zimbabwe (Potraz) has invited bids for the construction of 100 mobile network base stations targeting unserved areas to expand network coverage.

In a tender statement issued in August, Potraz said qualified firms should submit their expressions of interest by September 20th, 2019 for the designing, construction and commissioning of shared telecommunications towers as well as related infrastructure.

The projects would be funded using resources from the Universal Services Fund (USF), a pool of funds contributed by companies in the telecommunications sector and meant for the development and provision of telecommunications in under-served areas.

"In pursuit of its mandate under the Universal Services Fund, Potraz

intends to extend rural coverage by constructing 100 base stations in uncovered rural and remote areas in Zimbabwe," said Potraz. "The base station passive infrastructure should accommodate the existing three mobile network operators and provide spare capacity for additional operators. The project is planned to be implemented as a turnkey vendor financed Build and Transfer joint venture agreement. The supplier undertakes the financing and construction of the project and after its completion hands it over to Potraz. Potraz reimburses the total project investment on the basis of an agreed schedule."

A formal request for proposal will be issued following a review of the expressions of interest received – and qualifying interested parties will be notified to submit proposals for the project, the regulator said.

Teleforum appoints chairman

 The Forum for Telecoms Operators of Small States (Teleforum) has named Graeme Millar as its new chairman. Millar, also the chief executive officer at JT in Jersey, the largest of the Channel Islands, was appointed to this newly-created position at the 27th Teleforum conference in June. Teleforum represents 18 telecom operators from nations worldwide, including Cape Verde.

Over a million using Moya

 Data free service BiNu said its Moya Messenger and content application is now being actively used by over one million people in South Africa every month, with 650,000 people using it every day. It enables enterprises to reach mass market mobile audiences through toll-free data services. The main difference between Moya and WhatsApp is that no data cost is incurred by users to send and receive one-to-one or group messages and to visit a range of zero-rated websites and apps.

Three Ms hail new service

 WorldRemit has introduced its mobile-to-mobile fund transfer service to five new African nations including Malawi, Mozambique and Madagascar. The latest additions form part of an agreement with mobile payment hub company MFS Africa, which allows it to transfer money to and from accounts held with Vodacom in Mozambique; Orange in Madagascar, Airtel in Malawi and Niger, as well as MTN in Guinea. London-based WorldRemit is able to reach mobile money accounts provided by 39 operators across 29 countries, which means it can tap access a base of more than 190 million individual accounts.



Talking satellite

Martin Jarrold, chief of international programme development, GVF



Satellite & Africa's digital transformation

I want to look into the nature of the likely loss of opportunity for Africa resulting from the repeated threat from the mobile wireless sector as it again ramps-up its effort to displace satellite from its spectrum in various frequency bands. The very existence of the threat does not make any practical sense at all – not for Africa, nor for anywhere where communications services are a commercial, developmental, educational, governmental, industrial, and societal imperative.

Africa, as elsewhere, continues to face a digital divide and satellite connectivity is crucial to narrowing it; to bridging it. Why? Only satellite can provide ubiquitous, low-cost, and high-speed connectivity beyond the boundaries of large cities and across regions with limited fixed or mobile coverage.

The long-heralded promise that the landing of undersea optic cable would bring fibre deployment to all that require high bandwidth connectivity and bridge the divide has not happened, at least not beyond coastal urban centres.

Decades after undersea optic cable landed in Africa, 400 million are without internet access. This figure increases substantially when considering access to fast Internet. Over 300 million people live more than 50km away from a fibre or cable broadband connection, while 40% of sub-Saharan Africans still have no broadband. It is very unlikely that this will ever be addressed by fibre because there is no compelling economic argument underpinning it. Neither fibre nor the terrestrial mobile operators will bridge this connectivity divide. They cannot guarantee their network deployments beyond high density areas because of investment challenges and CAPEX cuts.

That said, African countries illustrate the ever-growing benefits derived from access to satellite broadband, for example, the accelerated beneficial impact on national socio-economic progress which results from the orbiting of high throughput satellite (HTS) technology, capable of delivering significant performance improvements, with more reliable coverage for users and at a lower cost.

There is evidence demonstrating the benefits of broadband digital

transformation for economic growth. Studies on the impact of fixed and mobile broadband indicate that a 1% increase in broadband penetration leads to an increase of 0.08 to 0.15% in Gross Domestic Product (GDP). [‘The Economic Contribution of Broadband, Digitisation & ICT Regulation’, ITU]

Ensuring this connectivity growth requires that government policies and regulators’ approaches to rules should guarantee access to necessary amounts of satellite radio spectrum; promoting a framework of regulatory certainty which will facilitate satellite’s role in broadband deployment.

Many existing African communications networks depend on C-band satellite links. These provide reliable, uninterrupted communications, unaffected by signal attenuation resulting from heavy rainfall. Euroconsult – the Paris-based consultancy – analysis indicates that C-band makes up over 58% of all satellite capacity used in Africa, with over 80% of C-band capacity over the continent in use at any point in time. However, even this figure underestimates the importance of C-band to the continent’s networks.

Satellites currently procured by operators intended for coverage of sub-Saharan Africa all carry a C-band payload representing 20-70% of the total satellite capacity. Multiple satellite operators expect a five to 8% increase in demand for their African C-band offerings, so this figure will increase. Whilst services relying on C-band in Africa cannot be easily replicated in other satellite bands (nor by terrestrial means) that does not mean that Ku-band and Ka-band are unimportant to the continent.

Ku-band benefits Africa by providing coverage to large geographical areas and is critically important, for example, for (live) broadcast, mobile backhaul, and broadband connectivity, together with aeronautical and maritime services.

The characteristics of this frequency band allows satellites to cover overlapping areas, making it well-suited for covering vast geographical areas and challenging terrain. The band is getting increasingly congested as mobile and data traffic continues to grow and if terrestrial applications are allocated additional sections of this band the congestion could prevent satellites from providing their current services. Addressing Ku-band congestion, the last ITU WRC in 2015 allocated 250 MHz in the uplink and 250 MHz in the downlink for Fixed Satellite Services (FSS) in ITU

Region 1, which includes Africa. Adding IMT services to this band would risk making the WRC-15 decision obsolete and increase congestion.

Ka-band is vitally important too. Across the continent Ka-band satellite connectivity impacts education, entrepreneurship, health services and emergency response in rural areas in a way no other technology can. With Ka-band, like C- and Ku-bands, we have connected the unconnected in parts of Africa that no terrestrial technology has been able or is even interested in reaching.

The space segment is one thing; ground segment issues are vital too, as are the segment’s technology trends that are bringing to market smaller antenna aperture sizes and phased array and other flat panel technologies that are less expensive than their predecessors. Here, too, policy and regulation should facilitate satellite access by favouring class, or blanket, licensing regimes, whereby one single authorization covers all similar equipment and types of service.

Additionally, as a general principle, regulatory fees should be set to a minimum, i.e., focused on the recouping of administrative costs, but avoiding customs duties on equipment imports, type approvals fees and licensing charges that are used as a mechanism for national treasury revenues. These customs duties serve to disincentivise the deployment of satellite communications infrastructure and thereby slow the growth of internet connectivity and economic growth.

Satellite supports an expanding range of applications. The commercial, developmental, educational, governmental, industrial, and societal imperative referenced above can be delivered by satellite... serving all Africa’s nations. Where services such as banking, education, healthcare, humanitarian assistance & disaster recovery, government communications, rural telephony and other networks are beyond terrestrial services, all function over satellite. And now we include the tens of billions of device connectivity of the Internet of things (IoT) and of connected vehicle solutions.

Satellite connectivity bridges divides – bringing digital transformation to fight the iniquity of inequality and poverty for the people of an entire continent.

Making telecom site rollouts & management efficient at scale

In the 1990's and 2000's the founders and the rest of the ITD team managed tower rollouts in Africa, Middle East, Europe and Asia. From that experience they saw how technology can make rollouts and maintenance of site infrastructure much more efficient. IT-Development SAS was founded, and ClickOnSite, our flagship product for managing infrastructure rollouts, assets and maintenance, was created.

At its core, ClickOnSite is a highly performant, flexible database, with a data model compliant with telecoms industry standards. Atop the database are layers of business logic that make processes around rolling out and managing sites and infrastructure easy and efficient. For MNOs and towercos, going from Excel to ClickOnSite is like upgrading from a landline to a smartphone.

The longevity of customers staying with ClickOnSite speaks to its utility and ITD's partnership with its clients:

- ◆ 98% of customers use ClickOnSite on a daily basis.
- ◆ 95% of ClickOnSite customers stay with the software.

Speeding implementation, reducing complexity

In Africa, the number of towers being built is accelerating: TowerXchange estimates that between now and the end of 2022 at least 27,440 new sites will be built in Sub-Saharan Africa. With 5G's densification requirements, new site builds will continue to go up. And key to 5G is fibre implementation, which ClickOnSite also handles.

Besides more assets to track, all this means more rollouts, which is more project management. Excel is a terrible solution for both, for countless reasons. ERP systems are expensive to buy (and maintain), take a long time to implement and require users to conform to how the software works, rather than the other way around.

ClickOnSite is tailor-made, and optimised for, managing rollouts and operations of towers. It is easy for staff from the office to the field to use, fast and flexible to implement, and inexpensive to acquire and maintain.

Digital transformation at telecom operations

Having a central storage of data – a single point of data truth – which everyone across the company



(and contractors) accesses and uses in real-time, is a big leap forward from where most MNOs and towercos are today. It makes for unprecedented accuracy and transparency of information.

Analysys Mason released a study of the top three towerco asset management objectives:

1. Reduce site costs by increasing automation and preventative maintenance.
 2. Improve the ability to track and understand all assets.
 3. Manage increasingly large number of assets such as small cells.
- ClickOnSite achieves these through:
- ◆ Everyone working on one set of data-truth in real-time increases visibility and control across the entire organisation.
 - ◆ BPM automates the distribution of tasks among team members.
 - ◆ Cutting costs due to errors: one set of data means no duplication and ClickOnSite Mobile eliminates extra steps and transcription errors.

Making data useful

The Analysys Mason study goes on to state: "However, there is a big difference between asset tracking and the monitoring of asset performance. An even bigger difference exists between these processes and proactive troubleshooting and forward planning."

These findings dovetail perfectly with why we created and make ClickOnSite: to ensure accuracy so you can use your data to improve your business.

- ◆ Sophisticated reporting gives a clear, real-time view of your assets and projects for status and planning.

- ◆ Project management reporting highlights where processes go slower than expected.
- ◆ Combining project management data + assets data means reduced site visits and/or combining tasks on a single visit.

When we implement ClickOnSite for a customer, we do much more than just make software work, we set the stage for the digital transformation of their processes and way of working.

ITD/ClickOnSite in Africa

The first ClickOnSite implementation was in Cameroon in 2005. Since then, ClickOnSite has grown to more than 12,000 users in 20 countries. Yet Africa remains the region where we have the most customers, and where our staff spends the greatest amount of time. The fact that ClickOnSite has both French and English interfaces, and that our staff speaks French as well as English, means our customers and users communicate with us in their preferred language.

We have two offices on the continent: in Abidjan, Ivory Coast and Johannesburg, South Africa. Our offices keep us close to our clients, allowing us to offer top service in terms of support, implementation and change management related to site infrastructure management and digital transformation of operations.

We are integrated within business and life in Africa: committed to making everyday work more efficient and satisfying and creating opportunities for people in telecoms through hiring local talent and opening training centers for telecoms professionals (ex. project managers, developers, BPMN). ■

Simplify everything | Reduce risk | Maximize ROI
Tower rollout, site & asset management software

Visibility & Control

- Everyone from the office to the field works on one set of data
- Everyone sees info in real-time
- BPM workflow tells everyone what needs to be done

Scaling

- Manage 1,000s of towers/sites easily
- Connect the field and the office: collaborate from anywhere
- Increase productivity with fewer people



ClickOnSite | itd

www.it-development.com

#MakeTheEverydayBetter

Orange finds partner to help with Africa's financial services industry

Orange Business Services and economics-based consultancy firm Genesis Analytics have penned an agreement to serve the financial services industry in Africa and the Middle East.

The French mobile operator said in a statement that the partnership is focused on providing strategy consultancy to prepare financial institutions to launch new digital ecosystem banking services, according to a statement released by Orange.

"It will also help these financial institutions address the increasing disruption of innovative mobile payment and digital banking business models with a full portfolio of digital capabilities," the statement said.

The partnership will draw on

Genesis Analytics' African and Middle Eastern expertise in regulatory economics, strategy and market research and Orange's experience in digital, cloud and network services.

"The financial services sector worldwide is disrupted by rapid consumer adoption of new technologies and changing regulatory frameworks on payments, privacy and cloud computing," said Pieter Zylstra, regional director digital transformation and financial sector lead for Middle East, Africa and Turkey at Orange Business Services. "These changes require banks to alter their operating models, especially in Africa and

the Middle East. Combining digital banking solutions from Orange with Genesis Analytics' deep regulatory understanding of the African

and Middle East financial sector provides our customers with a better service to address financial inclusion challenges ahead."



The partnership will draw on the Genesis Analytics' African and Middle Eastern expertise in regulatory economics, strategy and market research with Orange's experience in digital, cloud and network services

PEOPLE MOVES & CHANGES

Date	Name	New employer	New position	Previous employer	Previous position
1/9/19	Thato Motlanthe	MTN Group	Executive for investor relations	Absa Asset Management	Portfolio manager
7/8/19	Douglas Craigie Stevenson	Cell C	CEO	Cell C	Acting CEO
1/8/19	Massingue Boaventura Apala	ARECOM	Director general	ARECOM	Director
1/8/19	Nikolai Beckers	Ooredoo Algérie	CEO	Azerconnect	CEO and executive chairman
24/7/19	Abdoul Ly	ARTP (Senegal's regulator)	Director general	Abm Technologies	Chief executive officer

INVESTMENTS, MERGERS, ACQUISITIONS

Date	Buyer	Seller	Item	Price	Notes
1/7/19	Maroc Telecom	Millicom International Cellular	Tigo Chad	NA	Deal is 100% acquisition
4/6/19	American Tower	Eaton Towers	Tower business	USD1.85bn	Deal not yet completed

LATEST COMPANY RESULTS

Date	Company	Country	Period	Currency	Sales (m)	EBITDA (m)	EPS (units)	Notes
30/7/19	Huawei	China	H1	CNY	401.3bn	N/A	N/A	Aggregate revenues up 23% year-on-year
29/7/19	Ooredoo Algérie	Algeria	H1 2019	QAR	QAR1.3bn	N/A	N/A	Results were further impacted by the depreciation of the Algerian Dinar by 3% year on year
22/7/19	Maroc Telecom	Sweden	H1 2019	MAD	MAD3bn	N/A	N/A	Figure relates to profit
17/7/19	Ericsson	Sweden	Q2 2019	SEK	SEK54.8bn	N/A	N/A	Shares fell the most since early 2018 on quarterly results

ONSA joins telecom aviation fight

Nigeria's Office of the National Security Adviser (ONSA) has waded into the ongoing row between telecoms operators in Nigeria and the Nigeria Civil Aviation Authority (NCAA).

The argument started when the NCAA threatened to demolish approximately 7,000 (some reports said 8,805) communication towers belonging to telecom businesses and others, because the structures do not comply with height restriction and other regulations.

It then escalated when the Nigerian Communications Commission (NCC) said it reported the NCAA's threat to ONSA because the targeted towers form part of the critical national infrastructure and any attempt at disruption must be approved by the security adviser.

However, the NCAA has remained defiant and said it will tear down masts belonging to organisations that have failed to act.

The NCC argued that the NCAA's threat puts national security at risk, claiming the action could trigger communication blackout while financial institutions, which rely on ATMs, would not be able to operate.

"The path the NCAA is towing is not in the best interest of the country as the proposed demolition will have serious security implications," said NCC's executive commissioner in charge of stakeholder management. "Thousands of subscribers will lose connectivity, bank ATMs will shut down and critical equipment leveraging telecom infrastructure will no longer function. "NCC expects that at the minimum the NCAA would relate directly with the Commission as the regulator on this matter in the spirit of government inter-agency collaboration towards some sort of arbitration and resolution. To have chosen to make the matter a media issue suggests some kind of subtle ambush against the operators".

Most operators have complied with the NCAA's directive to secure an aviation height clearance certificate for every mast installed across Nigeria, regardless of height and location.

Telecom Egypt and Juniper Networks sign new deal

Telecom Egypt and Juniper Networks have signed a memorandum of understanding (MoU) for shared opportunities to provide IP-based, high-performance networking solutions to enterprises in the northeast African nation.

Under the terms of the deal, the Egyptian operator will also have the option to become an authorised resale partner of Juniper's technology solutions in Egypt.

"The opportunity to agree to an MoU with Juniper and explore the business market potential for transformative networking technology is very exciting for Telecom Egypt as it seeks to pioneer innovation in Egypt," said Telecom Egypt managing director and chief executive officer, Adel Hamed. "Telecom Egypt appreciates the collaboration with Juniper Networks because Juniper's technology is highly reliable and scalable and it also provides an excellent return on investment. It's a key partnership for us on the journey to help deliver our strategy toward digital transformation and specifically for Egypt's enterprises."

In addition, Telecom Egypt the country's longest established and most prominent player, will also upgrade its own network infrastructure to include Juniper Networks products and services.

CRIET in Benin calls for pre-reg SIM sales to stop

The Special Prosecutor of the Court of Anti-Economic Offences and Terrorism (CRIET) in Benin has called on mobile operators MTN and Moov to end sale of pre-registered SIM cards.

According to reports, the sale of those cards, pre-registered with another person's name is not in accordance with the country's regulatory guidelines.

"In any event, mobile operators will be held accountable for violating legal requirements as a result of their negligence in ensuring

that formalities relating to subscribers' registration are fully complied with," said prosecutor Gilbert Togbonon.

The CRIET prosecutor demands strict compliance with the regulations on subscriber identification in order to reduce national insecurity risks, especially in view of the terrorist attacks in several west African nations and particularly those bordering and neighbouring Benin.

Vodafone Egypt slapped with E£10m fine

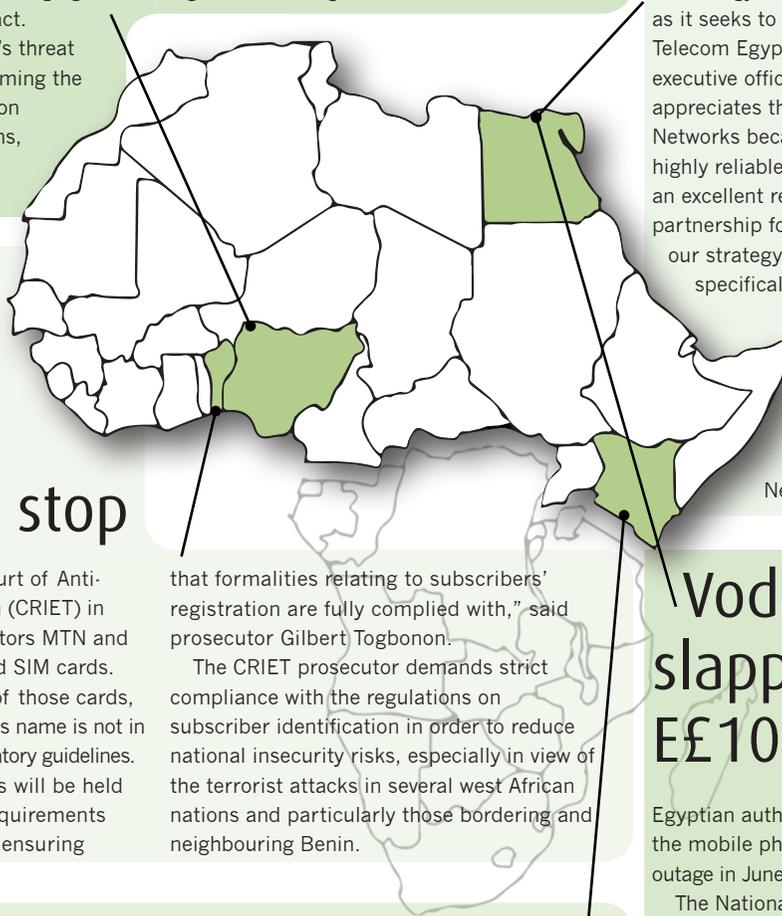
Egyptian authorities fined the national branch of the mobile phone giant E£10m over a coverage outage in June just ahead of the Eid al-Fitr holiday.

The National Telecommunications Regulatory Authority (NTRA) said it made the "unprecedented" move after services dropped "for several hours, in multiple regions" on June 3rd just before the holiday which marks the end of Ramadan, the Muslim holy month of fasting.

NTRA also stressed "the need to compensate subscribers affected by this interruption" after many Vodafone Egypt users took to social media to voice their discontent.

The operator sent a text message to users apologising for "the network's performance" and offered up free internet packages as compensation.

Vodafone Egypt is positioned ahead of three other national operators: Orange, Etisalat and We.



Airtel Kenya loses US\$6.7m

Airtel Kenya lost Sh670m (US\$6.7m) through its mobile money transfer platform last year, in what has been described as "one of the biggest inside job corporate thefts in recent history".

The huge losses were revealed in a prospectus of parent firm Airtel Africa, which showed that only Sh86m (US\$860,000) of the amount lost was recovered through insurance.

"In 2018, incidents of cash control frauds were identified in the Airtel Money operations in Kenya, which involved circumvention of its controls by

Airtel Money employees and resulted in loss of \$6.7 million (Sh670 million)," Airtel Africa said.

The firm added that while it has introduced stringent controls to check on fraud, risks posed by employees cannot be completely eliminated.

Some of the measures in place include daily reconciliations, separation of duties and technical restrictions on transfers to non-Airtel bank accounts.

The revelation came barely a fortnight after two Safaricom staff members were charged in court with attempted fraud of over Sh300m.

Safaricom names board member Michael Joseph as interim CEO

Safaricom has named board member and former chief executive officer (CEO) Michael Joseph as its interim boss after the company's long-time head Bob Collymore died following a near two-year battle with cancer.

The company held a special board meeting on July 1st, 2019 immediately after Collymore's death was announced.

Joseph, a dual American and Kenyan national, was the founding CEO who led the company for a decade before Collymore took over in 2010. He is also a member of its board and chairman of Kenya Airways.

In a statement dated July 1st, 2019 – the day

Collymore passed away – and signed by company secretary Kathyne Maundu, Safaricom said: "The Board is confident that during this transition, Mr Joseph will provide the necessary guidance and leadership to the Company and its employees."

Guyanese-born British businessman Collymore was a very popular figure who helped to turn Safaricom into east Africa's most profitable company. He had agreed to continue as CEO for another year in May after the Kenyan government insisted that a local was picked to succeed him. He died at his home on July 1st (see page 17). Safaricom is Kenya's most valuable company.

Frogfoot Networks delivers broadband coverage to Soweto

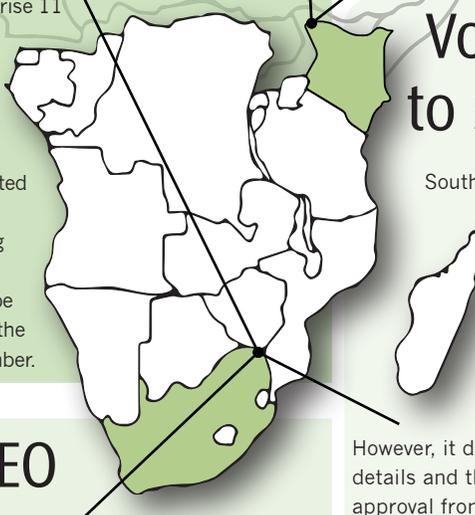
Frogfoot Networks, the open access fibre network provider, is rolling out fibre infrastructure in Protea Glen, Soweto, in a phased approach, with up to 20,000 homes and businesses to benefit from access to affordable, reliable broadband connectivity.

Earlier this year, South African president Cyril Ramaphosa appointed a Presidential Commission on the Fourth Industrial Revolution (4IR), which will assist the government in taking advantage of the opportunities presented by the digital industrial revolution. Affordable broadband connectivity is critical to making this a reality.

"Providing world-class connectivity has been the main driver behind this project, and we are excited to be the first fibre to the home (FTTH) provider in this area. Increased access to the internet can help improve economic growth in the region," said Shane Chorley, head of sales at Frogfoot. "As with other areas covered by Frogfoot fibre, schools within the coverage area can apply for a fibre link as part of the company's schools promotion campaign, which

gives these institutions access to a free FTTH connection of up to 1Gpbs, with their preferred internet service provider, and we urge schools in the area to take advantage of this opportunity by engaging with ISPs."

The areas being covered as part of the infrastructure rollout are Protea Glen East and West, with work starting in the West. This region will be divided into 10 Zones, while Protea Glen East will comprise 11 zones. Work on the project is set to commence in early July and it is expected that the first zone - covering about 1 000 houses – will be completed by the end of September.



Safaricom and Wananchi fight in broadband space

Safaricom has gained market share in the fixed broadband segment, while market leader Wananchi Telecom has lost ground.

That is according to the Q3 report (January to March 2019) by Kenya's Communications Authority (CA), which revealed that Safaricom secured over 16,000 connections to stand at 126,792 subscriptions. It represents 31.5% market share compared to 29% in the previous quarter.

Wananchi Telecom, owner of Zuku Internet, gained marginally by recording 143,000 subscriptions compared with 141,000 in the previous quarter. As a result, the firm's market share dropped from 38% to 35.8%.

The report also found that Safaricom still dominates the mobile data market at 65.3%, followed by Airtel Networks and Telkom Kenya at 26.9% and 7.2% respectively.

Airtel Kenya continued to grow its market share and posted a 15% rise in mobile subscriptions. In the previous quarter, it had 11.5 million subscriptions compared to the current quarter with 13.3 million subscriptions.

The CA said the rise came as a result of users adopting multiple SIM cards in order to take advantage of various offers made available to them.

Vodacom looks to sell in Africa

South-African telecom firm Vodacom, the African unit of British giant Vodafone, is selling operations in Angola, Zambia, Côte d'Ivoire, Nigeria and Ghana.

In Angola, the company said it plans to divest its Business Africa unit to Internet Technologies Angola (ITA).

However, it did not disclose any financial details and the agreement is subject to approval from market regulatory authorities.

In Zambia, Côte d'Ivoire and Nigeria, operations will be sold to Synergy Communications while operations in Ghana will be absorbed internally by Vodafone Ghana.

The company said the transactions is in line with its enterprise strategy in Africa. Shameel Joosub, chief executive officer at Vodacom Group said, though the company is selling operations, it is not "exiting any of the territories related to this transaction and remains focused on continuing to deliver exceptional service to our global and multinational clients in these markets through long-term commercial agreements".

Naspers appoints new CEO

Global consumer internet business Naspers has created a new chief executive officer (CEO) role for its South African operations and given it to Phuthi Mahanye-Dabengwa.

In a statement, Naspers said she will report directly to group chief executive Bob van Dijk and will be based in Johannesburg where she will lead the group's day-to-day business.

Mahanye-Dabengwa will also be responsible for the new units, Naspers Foundry and Naspers Labs.

Launched at the South Africa Investment Conference in October 2018, the former is a R1.4bn start-up fund aimed at boosting the South

African technology sector. In addition, it will help talented and ambitious South African technology entrepreneurs develop and grow their businesses.

"Phuthi is a seasoned leader with a strong track record of achievement throughout her career," said van Dijk. "Her significant investor and board experience across varied sectors makes Phuthi the perfect match for this important role at Naspers."

Mahanye-Dabengwa was previously executive chairperson at Sigma Capital, a privately held, majority-black owned investment group, also based in South Africa.



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Thank you and farewell, 'bubbly Bob'

Bob Collymore telecom executive 1958-2019

Tributes have poured in following the death of "bubbly" Bob Collymore, the chief executive officer (CEO) of Safaricom who passed away July 1st aged 61, following a two-year fight with cancer.

The Guyana-born British businessman who led the Kenyan operator through almost a decade of innovative growth, had roles at retailer Dixons, mobile operator O2 and BT in the UK before joining Vodafone. He launched its 3G strategy in the Japanese business market and became head of corporate affairs in South Africa before heading northeast to Safaricom. His impact was noticeable from the start. Between taking up the reins in 2010 to his death in 2019, Safaricom's user base doubled and profits increased 380%, turning it into a US\$10.8bn company. To put that into perspective, Safaricom's latest set of annual figures show it contributed 6.5% to Kenya's total GDP in 2018.

"It is with deep sadness that we received the news of

Safaricom's new chief it was at the height of a price war sparked by arch-rival, Airtel Kenya. Collymore stood firm, refusing to slash prices in his drive to provide better services. The result? Subscribers remained loyal.

Other examples of strong leadership include the firing of internal procurement officers before seeing off two attempts by the state regulator to break up the company due to its dominant size. He argued poor customers relied on the network for banking services via M-Pesa, the money service that helped make Safaricom the first multi-billion-dollar-a-year revenue company on the Nairobi bourse.

James Mwangi, CEO at Equity Bank, who also worked with Collymore on the Kenya Vision 2030 board, added: "Collymore was an exemplary, visionary, innovative and dynamic leader of



of cashless payments way before the likes of US counterparts Apple Pay and Google Pay had got out of the starting blocks. The flagship M-Pesa service for mobile payments is thought to be used by some 20 million people. Although it was launched prior to Collymore's arrival at Safaricom, it was under his leadership that it became a

about his cancer treatment. He said that when medics told him chemotherapy would last six to nine months, he quipped: "Being a Safaricom person I thought we could probably do it in five."

Having undergone treatment for acute myeloid leukaemia in the UK, Collymore could fight on no more. In a press conference announcing his death, Safaricom's board chair, Nicholas Ng'ang'a, said that the CEO played an active role in guiding the company until the very end. "He has continued even from his bed and from his house to give leadership to the

"He has continued even from his bed and from his house to give leadership to the company, for which we are truly grateful"

Nicholas Ng'ang'a, board chair, Safaricom

"Although Bob Collymore has left us, his inspirational life will remain a great legacy, not just to Kenyans, but also to the whole world"

Uhuru Kenyatta, president of the Republic of Kenya

the passing on of our friend, neighbour, partner and long-time customer, Bob Collymore," said Jeremy Awori, Barclays Bank of Kenya managing director, in a post on the bank's Facebook page. "We send our condolences to Bob's family and friends, and the entire Safaricom family. Our thoughts are with you at this difficult time. As a country, we have lost a great leader; one who stayed committed to his purpose, work, and family, and had Kenya's interest at heart. May his soul rest in peace."

When Collymore became

our time. He earned our respect for his visionary and exemplary leadership skills."

The tributes were not just limited to business luminaries, either.

"Although Bob Collymore has left us, his inspirational life will remain a great legacy, not just to Kenyans, but also to the whole world," said Kenya's president, Uhuru Kenyatta.

Safaricom's products freed up millions of "unbanked" Kenyans to shop and pay for services at the touch of a smartphone. Kenya and east Africa then became the unassuming pioneers and leaders

staple of daily Kenyan life. He also oversaw the launch of the overdrafts service Fuliza and micro-savings service M-Shwari.

A bona fide people's person, Collymore was recognised for believing in youth and promoting gender equality at Safaricom, where almost half of the staff members are females.

Numerous employees recall how he would encourage them to abandon their work devices of an evening and to instead invest that time and energy with their families.

In fact, he endeared himself to people wherever he went. It's been said that when he wanted to learn about the lives of Safaricom's poorest customers, instead of asking those who might know, he would take a local bus and even walk around the country's slums with a prominent anti-corruption activist, Boniface Mwangi, by his side.

Collymore was also a formidable frontman and the Kenyan media dubbed him "bubbly Bob", a nod to his acid wit and jocular interviews. Talking to Kenya Citizen TV last year, Collymore even joked

company, for which we are truly grateful," he added.

To get an idea as to what Collymore meant to Kenya, then look no further than the words of Mutahi Kagwe, chairman of Tell-EM PR, former Communications minister and former Nyeri Senator. "I worked with Bob Collymore in my capacity as chairman of the Senate Committee on ICT," he said. "Though not born Kenyan, he was truly one of us."

A fervent reader, saxophonist, jazz aficionado and art collector, Collymore was vocal in the fight against corruption in Kenya right to the end.

"You've all experienced Bob, his largeness, his enthusiasm, his greatness, his affinity with people and I think that's what has driven this company and what Bob has done for this company," said Michael Joseph, his predecessor as CEO and temporary replacement, said in a news conference after Collymore's passing.

Southern African Wireless Communications sends its condolences to Collymore's wife Wambui, his four children as well as his closest friends.

Teltronic uses CCW to launch eNEBULA



Teltronic brought to Critical Communications World (CCW) the new generation of eNEBULA infrastructure, a solution the company lauds for its robustness and reliability in hundreds of deployments all over the world. Its specific features cover public safety, transport of passengers and other professional sectors.

The firm says it continues developing and evolving its TETRA system to adapt it to the new needs and demands of critical communications users.

In order to do so, eNEBULA incorporates LTE broadband capabilities fully integrated with TETRA. This integration is carried out at all levels: infrastructure hardware and the network management system, control centre solution for both radio accesses and the terminals, due to the use of dual TETRA+LTE devices. As a result, through a single solution that preserves the investments made by TETRA users, Teltronic reckons “it is possible to evolve towards new broadband services” with features tailored to mission-critical users’ needs.

During CCW, Teltronic has also presented the MCBS, a new outdoor base station with what it claims are multi-carrier capabilities. These benefits, it says, will mean a significant reduction in costs, in key aspects such as the optimisation in the design of networks, energy savings, or in the simplification of installation and maintenance tasks. www.teltronic.es

Amphenol RF introduces cable assembly line expansion

Amphenol RF introduces the expansion of its cable assembly line. The new series features the popular BNC connector to compact AMC micro connector designed with the widely used RG-178 cable. This assembly combines “the quick connect and disconnect versatility” of the bayonet coupling mechanism with the most commonly used micro RF connector on the market and is supposedly ideal for IoT, broadband, LAN, instrumentation and medical applications.

It features a straight BNC bulkhead jack on one end, which allows for various mounting options, connected to a right angle AMC plug. The RG-178 cable can be used in more rugged

environments unsuited for most standard micro cables. The BNC to AMC fixed length cable assembly is available in standard metric lengths of 50 through 300mm, with custom lengths available through the RF cable assembly configurator, QuickBuild RF.

Meanwhile, Amphenol RF has introduced the Wireless Infrastructure Solutions Guide, a digital short-form catalogue designed to streamline the interconnect selection process within the wireless vertical. This guide provides customers with an overview of the next generation of mobile networks, 5G, and a breakdown of the core applications,

alongside valuable product information required for developing the necessary infrastructure to support the increased data rates.

RF technology plays a key role in the next generation of mobile network standards established by 5G technology in order to enable low-latency applications including safe autonomous driving and 4K video streaming to smartphones. Amphenol RF connectors, cable assemblies and adapters provide high density, low cost solutions to support wireless connectivity. www.amphenolrf.com



ThinKom unveils new solution for satellites

ThinKom Solutions has brought to market what it opines to be a new offering “for efficient and effective land-based gateways” – designed to accommodate both current and next generation low-Earth-orbit (LEO) and medium-Earth-orbit (MEO) satellite constellations.

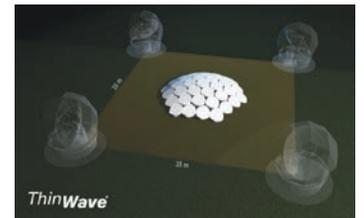
The new gateway concept, which the vendor describes as an “array of arrays”, is meant to provide an alternative to the large “antenna farms” of parabolic dishes currently used for support of geostationary (GEO) satellites. It is based on ThinKom’s phased-array antenna technology, which the firm claims is currently in use on over 1,300 commercial aircraft

installations around the world.

“The proliferation of cubesats, nanosats, microsats and other miniaturized satellites will require a new way of thinking when it comes to gateway antenna technology,” says Bill Milroy, chairman and chief technology officer of ThinKom Solutions. “The answer is not to deploy more and larger dish farms. Instead, we’re proposing an entirely new paradigm that’s designed for the future yet employs currently available proven phased array technology.”

Current-generation gateways employ large parabolic dishes which are necessarily limited to one link per dish.

ThinKom says its approach uses multiple, tightly arranged,



phased-array antennas, “which are coherently combined”. The antenna units “work together” to track multiple LEO, MEO and GEO satellites simultaneously with look angles between five and 90 degrees in elevation and full 360-degree coverage in azimuth (an angular measurement in a spherical coordinate system, in case you didn’t know). www.thinkom.com

TE’s surge arrester frees up valuable train rooftop space

TE Connectivity (TE) is introducing the RSTI 68 for the railway sector, which, it says, can be mounted directly on the transformer and free up the rooftop. The firm says it is fully tested against shock, vibration and meets the fire and smoke norms of EN45545-2.

It further claims that the ever-growing number of double decker trains means high products on rooftops can create challenges with

tunnels and bridges. However, it’s not just about height; roof space on trains in general comes at a



premium as more components need to be placed on rooftops – several of them requiring free space around them too, according to TE.

TE says the RSTI 68 surge arrester can be placed directly on the transformer and also at the rear side of the high voltage (HV) cable assembly that connects to the transformer. The product is designed for a sealed HV system,

“giving maximum design freedom in its vicinity”. What’s more, TE says that for trains using the new Lopro circuit breaker, this secondary surge arrester can even be placed directly on it, “creating even more configuration freedom in the HV system”.

The short circuit current is 20kA and the product is tested for 15kV and 25kV AC track systems. www.te.com

R&S and Marvin Test Solutions unveil new ZNBT40



Rohde & Schwarz and Marvin Test Solutions have partnered to introduce what they claim to be a “unique” turnkey solution suited for beamforming integrated circuits (IC) used in 5G mmWave (FR2) and satellite communications.

Beamforming, fast becoming a default concept in 5G NR and satellite communications, is a technology synonymous with the

aerospace and defence sector.

This new R&S ZNBT40 is a multiport VNA, which the companies claim enables fast, reliable and extensive verification and characterisation of beamforming ICs with typically 5, 9 or even 17 RF ports. It is a vector network analyser with a frequency range from 100 kHz to 40 GHz and a “true” multiport architecture.

In addition to testing multiport

devices under test (DUT) like the beamforming ICs, it also allows parallel testing of multiple DUTs using up to 24 ports. The large number of ports, the companies claim, makes it possible to characterise a beamforming IC in full detail and see the cross-correlation effects while monitoring all antenna connections. www.rohde-schwarz.com

PTC680 combines TETRA functionality and broadband services in one device

Hytera claims this 325-gram device from its series of multi-mode advanced radios is a communication solution for all types of mission-critical operations as well as for daily business operations with special requirements.

The PTC680 combines TETRA wireless functionality, LTE technology and the benefits of an Android-based smartphone with flexible data transfer via Wi-Fi, NFC or Bluetooth in a single device. It is also said to be “sufficiently robust” (MIL-STD 810 G and IP68 certified) to withstand the harshest and most challenging environments.

Boasting two cameras – the front one

has five megapixels and the back one has 13 megapixels – they take pictures and videos in full HD. The data storage of the radio (32 GB) can be expanded via micro SD card slots and the PTC680 captures video in real-time and provides continuous communication with back-end systems, such as emergency response communications to their control centres.

The company claims this ability to quickly share information results in faster response times in application situations, making situation-based decisions easier. It also says using this feature in industry makes operations much more efficient.

A 3.6-inch, high-resolution colour touchscreen user interface is supposedly “simple and intuitive” to use, even with gloves, for faster emergency response and quick access to information. It can be operated with just one hand via a rotary knob, a smart key, the PTT button and five programmable buttons. The most important information can be captured at a glance on the top display. www.hytera.com



Introducing the T901 from TECNO

TECNO, a mobile phone brand in Africa, offers the latest 3G smart feature phone T901 – the first of its

devices to run on KaiOS.

It appears to be a significant step for both companies in closing the digital divide by bringing users—previously inhibited by device affordability—online for the first time. The T901 will be available in three colour options: gold, blue and black.

“With the arrival of T901 powered by KaiOS, users gain access to apps such as WhatsApp, YouTube, Google Maps, and others on an affordable TECNO smart feature phone for the first time,”

says Stephen Ha, managing director of TECNO Mobile. “The phone also supports GPS, Wi-Fi, and 3G, with significant network speed growth and better anti-signal interference performance as well as faster signal reception in call mode than those in 2G.” According to Ha, T901 also comes equipped with the Google Assistant, allowing users to operate the device with their voice.

“Launching with TECNO is a significant milestone for both our companies,” adds Sebastien Codeville, chief executive officer of KaiOS Technologies. “The digital divide in Africa remains large, and we’re thrilled to be working side-by-side with TECNO to eliminate it. Visit any African city and you will understand how

important TECNO is on the continent, with stores on nearly every corner; we can’t wait to see the KaiOS-enabled T901 show up in all of these outlets.”

T901 is equipped with a hybrid dual-SIM slot which TECNO claims can support two SIM cards and with 512MB +256MB memory. It boasts a 2.4-inch QVGA display with 240x320 pixels resolution and a 1900mAh battery, which enables 25 days of standby time and up to 19 hours of non-stop calling.

The new device comes embedded with both a front and a rear camera with built-in flash light, which is supposed to enable clearer photos at night and in other dark environments. www.tecno-mobile.com

Look out for...

ZTE and China Mobile show off 5G credentials at MWC Shanghai

China used Mobile World Congress (MWC) Shanghai 2019 to show off its 5G credentials by showcasing MU-MIMO Multi-User performance.

ZTE, the Chinese multinational telecom equipment and systems company partnered with China Mobile to achieve 5G single cell throughput over 3.7 Gbps, plus a single EU downlink data rate of more than 200 Mbps in a 5G MU-MIMO multi-user performance test.

It was performed at China Mobile’s Guangzhou 5G field, using ZTE’s 160M full-band 4/5G dual-mode commercial base station and 16 ZTE commercial mobile phones Axon10 Pro. The base station supports dynamic spectrum sharing, achieving dual-network integration at 2.6GHz.

MU-MIMO is the core technology in 5G, thanks to the “multi-antenna features that help maximise the utilization of spectrum resources”, creating much greater revenue for users, according to ZTE.

The latter also said the test result showed a four-time increase in network system capacity than that of the SU-MIMO technology. The test footage and data were transmitted back to China Mobile’s booth at MWC Shanghai in real time from Guangzhou.

ZTE and China Mobile have been strategic partners for a number of years, working together on 5G technical innovation and industry development. The two businesses jointly developed a 5G prototype base station, a 5G site, 2.6GHz NR IoT and an end-to-end system.



It was performed at China Mobile’s Guangzhou 5G field

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Is the introduction of 'smeature' phones a smart move?

Telecom firms and manufacturers are targeting Africans on low salaries with 'affordable' phones. Robert Shepherd asks how they plan to do business with people on low incomes

Having a smartphone is something most people in the developed world take for granted, but in many parts of the planet they still remain unaffordable for hundreds of millions of others.

Earlier this year, French mobile operator Orange announced its plans to remedy the situation by launching its 3G Sanza "smeature" (a portmanteau of smart and feature, in

case you hadn't noticed) phone, using KaiOS Technology's operating system. It retails at around \$US20, depending on the African territory one lives in.

Yet, while it's all very nice for big corporates to say they are helping those who have small incomes, by nature they're not driven by altruism. To most of us they're cold-blooded businesses out to make as much money as they can. So, what gives?

"Orange has been tailoring its device portfolio for the African market for many years now and feature phones have been a natural fit for this market that requires low-cost handsets and low data costs," says Bernard Mazetier, marketing director, MEA major programmes, Orange MEA

Indeed, more than 60% of the African market is still feature phone oriented, according to market intelligence, International Data



Earlier this year Orange launched its 3G Sanza “smeasure” phone, retailing at around \$US20, depending on the African territory one lives in

Corporation (IDC). Mazetier points to the fact that these include devices and bundles like the Orange Klif (2015) “where we were the first operator to launch a communication bundle for a fixed price of US\$40 with a bundle of voice, data and text

included”. Orange also launched the Orange Rise 31, a partnership with Google, in 2016.

There’s no question that Orange has cornered much of the African market – especially the French-speaking one – but where does it go from here?

“While there is a growing market for smartphones, we however see a need in this market for phones which have the attributes of feature phones such as long battery life but which have the extra benefits of apps and other smartphone-like features such as voice-activated functionality, through Google Assistant and internet browsing,” Mazetier continues.

Josh Gosliner, director of product marketing at mobile financial identity provider Juvo, agrees. “For some people, this will be the first time they can actually access the internet,” he says. “It’s going to be a chance to use Facebook and WhatsApp and any of the services that help connect people. It’s also a way in which people can engage in mobile money in a more interactive way. I think there’s a lot of opportunities that



“If customers are having a bad experience with the phone, like if it’s slow, they’re much more likely to blame the telco than they will the device and that’s what leads to churn and other negative consequences for the telcos”

open up for people once they’ve got access to the internet and various applications.”

Great news then that the low-income customer will have internet access at the touch of the button, but how will operators make money from potential customers – many of whom earn less than US\$20 a day?

“From an operator’s perspective, it is also about the delivery of data and services to our customers, although we have negotiated the price of the handset with our hardware supplier with clear target prices in mind to maintain its affordability,” says Mazetier. “Orange sells the Sanza as a bundle in order to provide an attractive offer and provides the opportunity to our customers to discover the world of internet, social services, video, for example. Orange Ivory Coast has launched the Sanza at the price of US\$27 together with the following bundle - 1Gb per month for three months, 15 mins on-net and 100 SMS’.” What’s more, the Sanza comes pre-installed with Orange services such as My Orange (to manage your account), Orange Radio, Orange TV and Orange Money, where available in the country. It also comes with Facebook, Google Maps, YouTube, WhatsApp and Twitter.

Prima facie it sounds like it’s no different to the archetypal smartphone, but Gosliner says businesses have thought long and hard about how to make the phones affordable.

“A lot of telcos are buying into KaiOS because it allows them to take back more control with regards to how devices are being sold and what devices are being sold to consumers,” he adds. “Especially in Africa, there’s been a flood of inferior devices coming into the market from China, so there’s a need for a more controlled user experience and having devices that at least meet certain thresholds and specifications. If customers are having a bad experience with the phone, like if it’s slow, they’re much more likely to blame the telco than they will the device and that’s what leads to churn and other negative consequences for the telcos.”

Gosliner says “what’s interesting with KaiOS”, is that it’s taking out what’s most expensive about devices and potentially unnecessary. “None of them have touchscreens, they’re using 9-digit keypads,” he adds. “It’s a really interactive and smart-phone like experience that doesn’t incur the same cost as a full smartphone. There are also web-based apps, as opposed to native-based apps and while that may use some data, it’s taking pressure off the device and putting it onto the network. They’re built around being really lightweight, so they can have a strong experience without having to invest so much into the device and passing those costs onto consumers.”

Mazetier politely declines to comment on anything pertaining to sales figures, but James Moar, lead analyst at Juniper Research, says the challenge will be sustaining the hardware production, as these models are not going to drive high margins. “The vast majority of these



“The software is being provided by smaller players (most typically KaiOS Technologies), who wouldn’t be able to compete with Android or iOS elsewhere - and operator ARPU has been declining for years”

phones are being made ordered by operators, with Alcatel, Nokia and Reliance Jio being the biggest exceptions,” he adds. “In this case, the operators need to derive enough revenue to sustain what could be potentially subsidising these phones.”

So, if it’s such a viable model, why isn’t every operator and manufacturer doing likewise?

Well, many of them already are, according to Gosliner. “KaiOS is working directly with manufacturers and we’re also seeing a number of telcos working with manufacturers,” he says. “MTN has announced its partnership with China Mobile to produce the smeature phones it’s selling across the group. I believe the pricing is something like US\$30 for a 3G phone and US\$40 for a 4G phone. Samsung is trying to get down to the US\$100 range, but when you look at some of these KaiOS prices they’re going to be unbranded or branded to the telco. That’s the way in which they can really drive down prices. Another thing on top of that, there’s also an opportunity for telcos to provide subsidies for loyal customers, as well as in some instances to even provide financing. So, it’s not a case of putting down \$US40 all at once. It would be more like paying a few dollars every month until you’ve paid off the device.”

In many cases, Moar says, the operators are doing similar things in their own national markets, just for a different audience. “AT&T and Sprint are providing very similar styles of phone to users who aren’t familiar with smartphone technology and/or don’t necessarily have the manual dexterity to handle the devices well,” he says. “For those manufacturers that are focusing on emerging economies, their focus so far has been basic smartphones, which hasn’t been too successful.”

Moar points to Nokia’s Asha range and Samsung’s Tizen phones as examples. He added that several manufacturers only produce smartphones, which limits the playing field immediately. “For those that produce feature phones as well (such as Samsung), there is little incentive to immediately bridge the gap between the two, as they won’t gain much

increase in revenue from simple increases in connectivity," he says. "The biggest winners will be the operators and those who provide their software and services to the end users. Google is getting in on the act indirectly, through the provision of some of its services through KaiOS, but is unlikely to develop the initiative much itself, as it does not rely on Android in the same way that Android One does."

So, with a number of different companies in the supply chain, who is driving it? "The key is to note that it's a decision primarily driven by network operators and software providers, not handset manufacturers," adds Moar. "The ability to get poorer consumers on phones that consume data will increase the ARPU (average revenue per user) operators gain from the poorest consumers, even if it is only a small increase."

With that in mind, is it akin to the model adopted by Irish fast fashion retailer Primark – "stack them high, sell them cheap"?

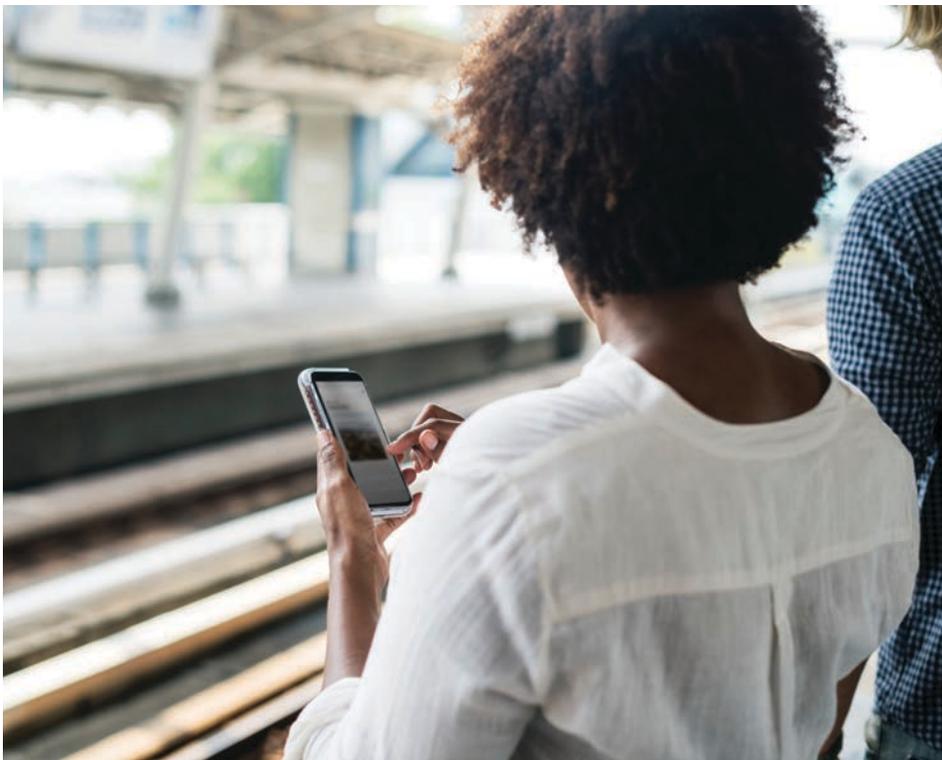
"Not at all," says Mazetier. "This is about the delivery of an affordable device that offers many of the features of a smartphone for a fraction of the cost, whilst offering additional benefits such as long-battery life."

Moar points out that these initiatives emanate from players who aren't traditional "big tech" stalwarts, as they have the most to gain from improving connectivity at the lowest levels. "The software is being provided by smaller players (most typically KaiOS Technologies), who wouldn't be able to compete with Android or iOS elsewhere - and operator ARPU has been declining for years," he says. "If these phones can give their users the ability to pay for data they will use (rather than not paying for data at all because they can't afford a smartphone), the operators will benefit."

However, operators still need to protect themselves and Biju Nair, president and chief executive of mobile device trade-in firm Hyla Mobile says this is where partnerships can be key.

"Operators with a recycling partner can take these older devices," he says. "Typically, you don't expect anybody to pay more than US\$1 for them, but that's still a way of subsidising the new phones. So, a US\$10 phone comes down to US\$8. The operator then says it will generate a certain amount of revenue from these subscribers and so is able to subsidise it further, so the phone comes down to US\$6. Then you have to involve governments."

Still, there's always a financial risk regardless of which industry you work in and Gosliner says operators are acutely aware of this. "There's the



Sanza, just like any smartphone today, comes with Facebook, Google Maps, YouTube, WhatsApp and Twitter readily available for download

perception that both mobile network operators and financial institutions tend to have is 70-90% of the population is just not creditworthy," he adds. "What we've been able to demonstrate that there's a significant percentage of the population that is creditworthy. Customers are being encouraged to increase the size of their basket of goods that they're consuming, but unless there's an additional income stream that money has to come from somewhere else."

Gosliner says one of the concerns the operators have around new devices and device financing is whether it is going to eat into core revenues. "How is the telco going to take somebody who has been using a smeasure phone but is only consuming minutes and SMS? How are we going to get them into debt and to start purchasing data?"

He opines that "one of the things we will see" is people moving from minutes and SMS to WhatsApp and becoming more data consumers than anything else. "But, of course, there is a credit risk," he warns. "However, it's not about default minimisation, it's actually about revenue maximisation. So, if you think about a credit card company – if its goal was to have 0% debt it would lend to few if any people. What they do is optimise their model to

make sure that they're expending just enough credit to maximise their revenue. That's the way the mobile network operators and the banks that are going to be involved in these projects should think about this. If there are more defaults but that means getting more people to use these devices, that's also an advantage. Everyone involved is making the right move by just running the experiment."

So, in terms of an entry point, it's just about as accessible as it can be and it will still be out of reach for some. However, Gosliner says it's also an opportunity for a lot of people to start entering a space traditionally the preserve of those with more disposable income.

"One of the things this can hopefully create is more innovation around applications on the continent," he adds. "Facebook and WhatsApp were not designed Africa-first and there may be some new mobile apps that come out that are Africa centric and can help people better engage with the formal economy."

Of course, it's still early days, but Gosliner says the industry is heading in the right direction and he's more optimistic about the outcome than he is pessimistic. "It's a really exciting opportunity and we don't know how it's going to play out, but we do know that the market is going to learn from this," he adds. "Any effort like this is only going to benefit consumers in the long term. I would place the odds more heavily on success than failure."

In 2008, Orange's slogan, "The future's bright – the future's Orange" was axed after many years by its chief executive officer Tom Alexander in a bid to revive its ailing fortunes. If Sanza comes off, the company might want to re-invoke it. ■

**Biju Nair,
president and
chief executive,
Hyla Mobile**



"Operators with a recycling partner can take these older devices - and although you don't expect anybody to pay more than US\$1 for one, that's still a way of subsidising the new phones"



Staying connected: Wi-Fi in the sky

ExecuJet becomes the first business carrier to get high-speed Wi-Fi as Honeywell brings in-flight connectivity to African business jets for the first time

Wi-Fi in the sky has landed to the sound of relieved business passengers in Africa. That's because in 2018, US consumer products and engineering conglomerate Honeywell completed the first installations of its JetWave satellite communications hardware on African aircraft.

As the need for humans to be constantly connected increases, so has the pressure to have in-flight Wi-Fi systems on the world's airlines – big, small and boutique.

Surprisingly, in-flight Wi-Fi is actually a relatively recent development. Giants like Boeing and Airbus didn't get it off the ground until 2001 and 2005 respectively. In fact, over a decade ago, the industry was built on low-bandwidth satellite-based systems to transmit data to connect the planes with the internet.

Next came the ground-based systems and this speed allowed passengers to access web browsing capabilities and the use of smartphone apps. The problem is these systems depend on ground-based transmitters, which means they only work on terra firma.

Unfortunately, the experience for many travellers has been expensive and fairly

disappointing. The limited bandwidth of the ground-based system has not been able to keep pace with the speed at which technology moves, while data needs continue to grow unabated. Yes, things have moved on quite a bit for the typical passenger, but one airline knows it pays to keep big-spending business travellers happy – and that means good connectivity. So, it decided

Rudolph Louw,
aerospace leader
of Africa,
Honeywell



“As Africa's aviation industry expands, we are welcoming a growing number of business aviation users, and with them comes a greater need for reliable, high-speed in-flight connectivity”

to do something about it last year.

ExecuJet South Africa called on Honeywell to kit it out properly. It installed the vendor's JetWave hardware onboard its Bombardier Global Express and Challenger 604 aircraft at its base in Johannesburg. What's more, it delivers access to the faster Ka-band satellite communications network, provided by Inmarsat through its Jet ConneX service.

This gives passengers and flight operators access to reliable, high-speed "Wi-Fi in the sky" that allows easy use of high bandwidth services. However, we're not just talking about reading online newspapers, composing emails or watching some short clips, the connectivity is actually strong enough to support things that are notoriously bandwidth hungry, such as video streaming, online conferencing and gaming applications. You could actually watch a live sporting event, (provided you're a subscriber). What's more, there's no (jet) lag – these services are delivered at speeds users are used to achieving at home or in the office.

"ExecuJet South Africa is committed to delivering best-in-class aviation services and we recognise the importance of reliable in-flight connectivity to heighten the passenger experience and modernise flight operations," says Warwick Stone, MRO business development manager, ExecuJet South Africa. "We look forward to continuing to work with Honeywell to provide our customers with the benefits of reliable, global, high-speed, in-flight Wi-Fi."

Furthermore, ExecuJet South Africa is also among the first to offer "Fly Away" installations



Honeywell says its JetWave Satellite Communications terminals provide a seamless, in-flight Ka-band global broadband service that is available worldwide

of the JetWave hardware on select aircraft platforms. By offering turnkey installations in fewer than 15 days, aircraft downtime is reduced to install this next-generation connectivity solution and passengers can benefit from increased productivity and seamless in-flight Wi-Fi in the air.

Honeywell says its JetWave Satellite Communications terminals provide a seamless, in-flight Ka-band global broadband service that is available worldwide. As "the exclusive hardware" with access to the Inmarsat Jet ConneX network, the JetWave system is designed to provide seamless data connectivity irrespective of where you are in the world. The hardware and network are optimised to work in flight, "providing an outstanding passenger connectivity experience".

Through the Jet ConneX service, business jet operators experience "industry-leading" connected aircraft capabilities delivering the bandwidth to meet passenger demand for seamless access

to business applications, online networks and entertainment options while they fly.

"As Africa's aviation industry expands, we are welcoming a growing number of business aviation users, and with them comes a greater need for reliable, high-speed in-flight connectivity," said Rudolph Louw, aerospace leader of Africa at Honeywell. "As an industry leader in connected aircraft technologies, our JetWave hardware is designed to significantly upgrade the connectivity onboard these jets, enhancing the experience of passengers, pilots, flight crews and aircraft operators."

He adds that these installations in South Africa illustrate "the truly global nature and reach of our connectivity solution and satellite network".

Now business passengers of all persuasions can surf the internet and at their leisure or even participate in online conferences, while remaining connected to their loved ones 35,000 feet below them. ■

A new wireless network for the largest container port in west Africa

Ghana's MPS Tema Port is currently undergoing an expansion project in order to keep up with more demanding traffic, not to mention the general hustle and bustle of the modern working life.

Located in the southeastern part of the west

African nation, along the Gulf of Guinea to be precise, the port is operated by the consortium Meridian Port Services (MPS), a joint venture with Bolloré Transport and Logistics as well as APM Terminals as the two main shareholders.

In order to allow communication between the operators and operating system, as well as to facilitate the usage of Vehicle Mount Terminals, MPS

knew that a robust wireless network was needed.

The challenge was tough because of varying needs. For a start, it needed a redundant coverage solution across a large area with strict requirements as to signal strength. Following a beauty parade of several potential suitors, MPS chose Altai Technologies, a Hong Kong-based manufacturer to supply outdoor Wi-Fi in this challenging environment. Altai, in turn, recommended E to E as the system integrator for this project given its expertise on deployment of Altai's solutions.

Altai was faced with a coverage area occupying an area of 30 Hectares and so it recommended its flagship A8 series to MPS. The customer duly agreed. To provide a full coverage for the whole area, 18 units of A8(ac) and 12 units of A8-Ein(ac) have since been installed in combination with AltaiCare On-Premises.

Post installation, A8's robust and delivers reliable performance on large area coverage. A8 does not only meet all of the customer's requirements but also exceeds the expectation on stability and signal strength. At the same time, the total capex and opex are much lower than other competitors' products in the market.

After the deployment, a 100% seamless network coverage is now available for the terminal operation system that is supporting the whole port.

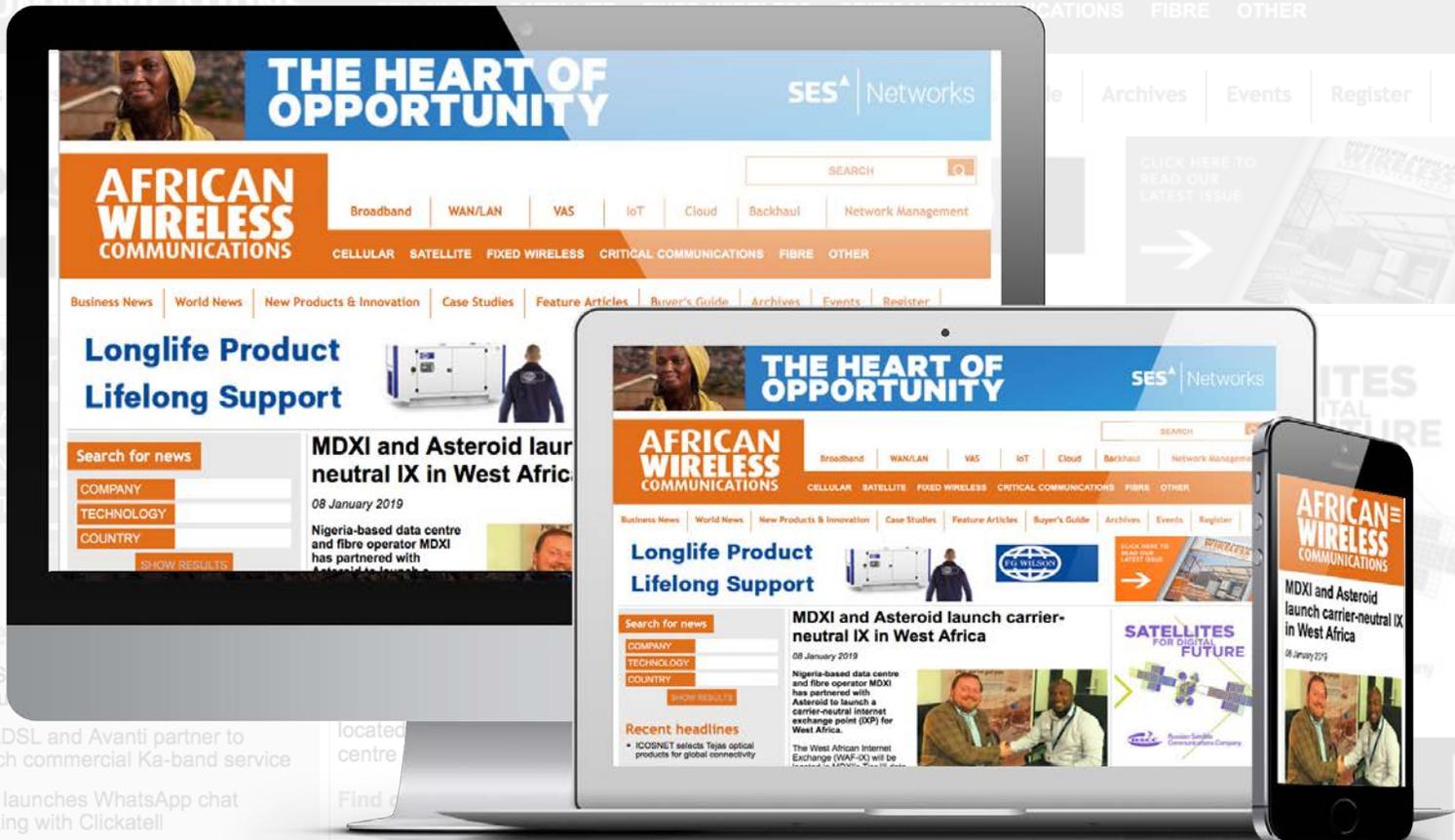
Upon completion of the expansion, Tema will become the largest container port in West Africa. The good news is it now has the best wireless network to support it. ■



Upon completion of the expansion, Tema will become the largest container port in west Africa

PHOTO: APM TERMINALS

AFRICAN WIRELESS COMMS.COM



Kenyan regulator reports positive outlook for ICT

for African wireless communications, as it happens

Increased by 8.5 per cent to KES252.3bn (USD2.47bn) in the twelve months to June 2018, according to the country's Communications Authority (CA).

In its ICT sector statistics, the regulator reports that mobile is still the dominant revenue source.

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How to monetise an agile data network

Anshoo Gaur, chief executive officer, software business at Sterlite Technologies talks data monetisation

Facebook. Google. Amazon. What do these companies have in common?

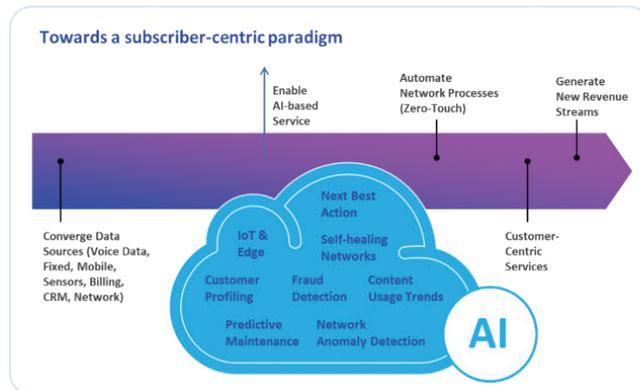
Multi-billion dollar companies, yes, but more importantly, these companies leverage the full potential of data and analytics to offer personalised experience to their customers.

If numbers are to be believed, then the volume of data that will be generated by 2020 will amount to over 44 zettabytes (ZB). But, data in itself has no value. However, when it's sieved through analytics, the same data can change the course of any business.

Telcos are uniquely poised in this data-driven future as they are sitting on a powerhouse of customer data. Considering the changing digital customer perspectives and stiff competition from digital service providers, it has become inevitable for telcos to reinvent themselves in sync with the changing market dynamics. It is time that telcos start treating their data as an asset, work towards building their big data and analytics capabilities and take a step towards promising Network Data Monetisation.

Big data brings big opportunities

This is the beginning of the best era for telcos where every individual has a smart phone and every house has smart devices that constantly keep customers digitally connected. Furthermore, with the advent of 5G mobile internet connectivity, the digital footprint of over 7 billion people across the globe will be no less than a big bang of data explosion. In



- Complex decisions based on detecting a large number of hidden or hierarchical influencers
- Self-learning
- Self-healing
- Autonomous decision making
- Delivering an enhanced CX

this given scenario, Network Data Monetisation can play a big role in the growth of the telecom industry. With its vast network outreach, telcos can optimise their opportunity and grab a big chunk in this growth pie.

Analytical intelligence-driven Network Data Monetisation is one of the most prominent ways of bringing out the value of data. Network Data Monetisation can be effectively used in optimising a company's business both internally and externally. Telcos can give an in-depth analysis of the operations, services, productivity and customer connect to enhance the functioning within the company. Externally, analytical intelligence can assess the performance of newly launched products, gauge customer's expectation and introduce relevant products with minimal risks, creating new revenue streams.

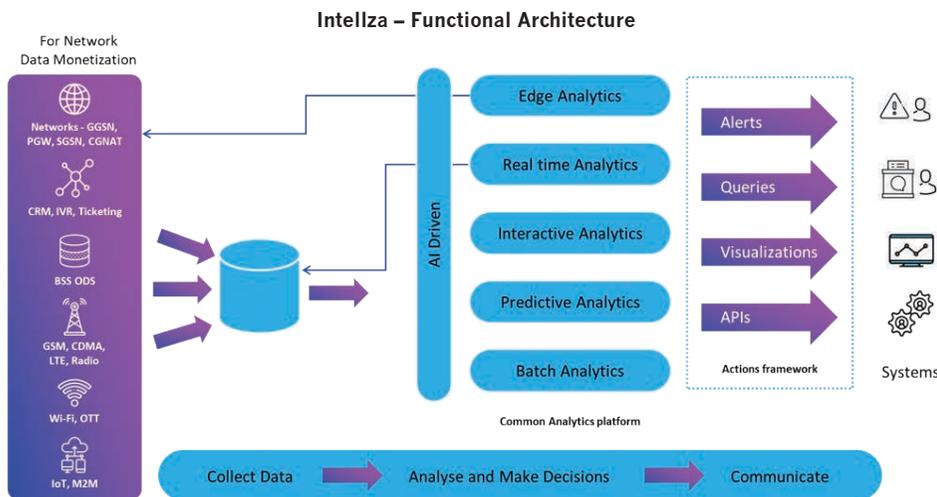
This opens up a huge opportunity for telcos

to build partnership models with B2B and B2C segments to provide data analytics services and grow with Network Data Monetisation.

AI-powered business intelligence

This is where the AI-powered business intelligence solutions gain prominence. Intellza is an AI-enabled real-time personalisation solution of Sterlite Technologies that optimises the monetisation opportunities of telcos and equip them to provide more valuable service to the customers via contextualisation without any extra spend. The assimilation and unification of customer data are not limited to usage patterns. It also covers channel-campaigns responsiveness and recent/current personal contexts.

By mining this consolidated data, advanced AI/ML algorithms provide personalised insights for the next best engagement. The monetisation



opportunities that are abstracted and mapped to the unified customer intelligence are made available on a single platform. It allows the telcos to put together smart product-bundles, craft hyper-relevant offers and choose right engagement tactics in real-time. The insights from Intellza are equally beneficial to marketers, campaign managers, CXOs, customer experience managers, customer retention teams and citizen data scientists.

Interesting use cases

The accuracy of data analytics depends on the five 'v's – volume, velocity, volatility, validity and variety.

- Volume: Telcos have access to zettabytes of data volume
- Velocity: High-speed internet brings in the high velocity of data usage
- Volatility: Telcos have to sieve out data inconsistency and unpredictability for uniformity
- Validity: Data accuracy amidst biases, noise and abnormality is a major challenge for telcos
- Variety: Accuracy in predicting customer behaviour come from accessing data from a variety of sources

Analytical intelligence weaves the Vs together and creates the sixth V, which is value. Today, Analytical intelligence is benefitting a wide array of industries.

Here's how AI-powered data analytics play a major role in some of the key areas.

Actionable insights to optimise network experience

Machine learning is applied to analyse the network performance data and build predictive patterns to help optimise the network. Intellza provides a user app for network experience which allows the end-users to check their network experience dashboard on demand.

Network experience scorecard

Network Experience Score measures each subscriber's network experience from a data application and call experience by analysing various parameters such as Remote Administration Tool (RAT) type downgrades, upload, download volumes, abnormal

releases, cause for the record closures and call failures as recorded in the Internet Protocol Detail Record (IPDR) and Call Data Record (CDR) logs.

Based on these inputs and past history, the telcos use an AI-based ML algorithm like XGBoost to predict the customer network experience score. This also helps the telcos gauge the ability of the network to deliver a high-quality experience to the customer. The scorecard reflects the performance during peak usage and compares with the benchmark or the expectation for each application - Web Surfing, Video Streaming, Social Media, Real-time Gaming and Voice Applications. Understanding network health based on industry-benchmarked KPIs is an effective indication of the quality of the customer's experience.

Intelligent offload to ensure smart connectivity

Intellza helps to improve the customers' network experience and it also helps the telcos manage the expensive network spectrum with the Smart Wi-Fi Offload solution. Edge application and AI-enabled Central Policy Manager help the users to automatically offload to Wi-Fi when the users have a good Wi-Fi connection.

The switching and authentication happen seamlessly without any user intervention. It reduces the cost for the telcos and the customers. The smart offloading allows the operators the flexibility to cost-effectively increase bandwidth and capacity, as the usage spikes in public areas.

Predictive customer journey to maximise customer engagement

AI-driven data analytics ensure the next best action and transform every customer to a highly-satisfied customer by sensing the context of their interaction, enabling multi-dimensional data view for successful personalisation strategies and maximising real-time engagement across channels. Telcos can use AI-driven data analytics to:

- Unify data from a variety of sources (customer relationship management (CRM) logs, social media, network, feedback & survey)
- Create dynamic customer personas using AI
- Fine tune and iterate the customer persona based on action/behaviour at the event
- Real-time personalisation and next-best engagement by bundling products, intent and persona attributes using predictive models
- AI triggered notifications to a customer over the channels of their preference

Intelligent fibre for a hyper-connected world

Intellza powered machine learning techniques are used to detect anomalies in sensor signal with a granularity of approximately one meter and a response time of sub-seconds along with the classification of anomalies in a response time of 3-4 seconds. The fibre's adaptation to environmental changes and false positive and false negative error rates even below 10% can be detected. The Probability of Detection rate of the system is 95%.

Bring new dynamics to your business

To sum it up, data in its raw format is utterly useless. With analytical intelligence, data can form a pattern and weave a story presenting actionable insights. Telecom operators, who handle the flow of zillions of data, can analyse each stream of data, understand the patterns and bring in new dynamics to any business.

Hence, network data Monetisation aided with Analytical Intelligence is the future of telecom industry and it is the only route for organisations to re-evaluate the value of their business. It is a win-win situation for both telcos and organisations to unlock the potential and opportunities that the data-centric future holds. ■



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This year the event is co-located with the FTTX Council Africa annual conference, highlighting the convergence across digital infrastructure which is taking place. As well as diversification, the event will cover changing revenue models for towercos and how this affects their investibility, new markets and geographic expansion, energy transition and power strategies and other approaches to operational excellence. Over 300 attendees regularly attend, and because of our in-depth research and personal relationships with industry we ensure the key decision makers attend and engage.

Find out more at www.towerxchange.com/meetup/meetup-africa/ for more information and book your ticket.

Network with:



Israel holds 5G tender

 Israel launched a tender for fifth-generation (5G) cellular frequencies in July, hoping discounts to struggling mobile phone operators facing fierce competition will entice bids.

Regulator, Ministry of Communications, said it expected the largest three groups – Cellcom, Partner Communications and Pelephone – to bid including a combination of operators to cut down on costs.

Furthermore, it said it expected to announce winners by the end of the year with a commercial launch to start in 2020 and continuing through to the end of 2023.

“We are aware of the companies’ current financial situation and the tender takes this into account,” said Israel’s communications minister David Amsalem.

The ministry has said 5G is necessary to develop health, agriculture and education, as well as smart cities and self-driving cars.

Israel’s three main telecom operators are struggling to stay profitable after a sector revamp back in 2012.

In the shake-up, a raft of new operators sparked a price war that led to steep drops in subscribers, revenue and profit at the three incumbents. All-inclusive calling, surfing and text packages are on offer at a price of US\$8 a month.

Hong Kong releases 5G spectrum auction details

 Hong Kong’s Office of Communications Authority (OFCA) has released details of its forthcoming 5G spectrum auctions.

The autonomous territory in southeastern China is set to auction off 380MHz of spectrum in the 3.3GHz, 3.5GHz and 4.9GHz bands.

Its big three mobile network operators will compete for a share of the spectrum that will help them to launch their 5G services in early 2020.

OFCA will auction off 100MHz of 3.3GHz spectrum, 200MHz of 3.5GHz spectrum and 80MHz of 4.9GHz spectrum.

“The communication authority will hold auctions of the three frequency bands in succession, starting with the 3.5 GHz band auction to be held on October 14th, 2019, followed by the 4.9 GHz band auction and then the 3.3 GHz band auction,” a spokesperson for OFCA said.

“Parties interested in acquiring the 5G spectrum may have about two months to prepare their applications and submit them to OFCA on 12 and 13 September 2019. The Government has set the auction reserve prices for the use of spectrum in the 3.3 GHz, 3.5 GHz and 4.9 GHz bands

at HK\$2 million per MHz, HK\$4 million per MHz and HK\$3 million per MHz respectively. The actual amount of spectrum utilization fees payable will be determined in the respective auctions.”

To avoid “an unduly high concentration of spectrum being held in the hands of a single spectrum assignee”, the spokesperson added that a spectrum cap of 70 MHz will be imposed on any assignee in the 3.5 GHz band auction and a spectrum cap of 40 MHz “will be imposed on any assignee in each of the 3.3 GHz band and 4.9 GHz band auctions”.

US sanctions ‘put telecom firms off Cuba’ – government task force

 US sanctions on Cuba are dissuading American companies from investing in its telecom sector even as Washington plans to expand internet access on the Caribbean island, according to the final report of a US government task force.

Companies from fellow communist country China dominate Cuba’s telecom sector, which is something “worth challenging

given concerns that the Cuban government potentially obtains its censorship equipment from Chinese Internet infrastructure providers,” the report said.

The Cuban government said the US state department’s creation of a Cuba internet task force in 2018 was “foreign interference”.

“US companies informed the subcommittees they are often

deterred from entering the market due to uncertainty caused by frequent changes to US regulations concerning Cuba,” the task force said.

Former US president Barack Obama created a loophole for US telecom companies to provide certain services to Cuba. Current incumbent Donald Trump maintained the loophole but tightened the broader sanctions.

Huawei to connect remote parts of Canada

 Chinese tech giant Huawei is to deploy high-speed wireless internet to a number of underserved communities in Canada’s remote northern regions.

The move, mostly 4G deployments, comes with Huawei under sanctions in the US over national security concerns and amid a diplomatic crisis between Canada and China over the detention of a Huawei executive in Vancouver.

Huawei said it would partner with Ice Wireless and Iristel to help connect rural communities in the Arctic as well as remote areas of north-eastern Québec, plus Newfoundland and Labrador by 2025.

The embattled Chinese firm added that some 25 communities

in the largely Inuit areas of the Nunavut territory would also benefit from the deployment.

“We strongly believe that everyone should be connected to 4G LTE, no matter where they live in Canada – even in areas where

high-speed service may not be economically viable,” said Eric Li, president of Huawei Canada.

Most Canadians have access to high-speed internet, but connectivity remains unavailable across some sparsely populated

areas in the world’s second largest country by land mass.

Huawei officials said wireless internet that would operate in some of the coldest temperatures on earth.

“We need to use highly reliable, world-class equipment to minimize physical intervention and to avoid outages that risk making our communities isolated once again. That’s why we partner with Huawei Canada,” said Jean-François Dumoulin, vice-president at Ice Wireless and Iristel.

Washington has continued to pressure its allies to boycott Huawei for the deployment of 5G wireless, claiming the company’s ties to Beijing and its intelligence services could pose security risks.



St. John’s in Newfoundland and Labrador, Canada

America Movil posts solid growth

 Mexican operator America Movil reported healthy profit growth in the second quarter, boosted by a strong mobile performance in its home market and Brazil, along with a decline in financial costs.

Controlled by tycoon Carlos Slim, the business posted net income of Mex\$14.1bn (US\$738.9m) up significantly from Mex\$435m year-on-year. However, revenue declined 2.7% to Mex\$250bn, which the company said was because of gains in the Mexican peso against other currencies, including those in Latin America.

Nevertheless, the strength of

the peso also helped America Movil lower overall financial costs by two-thirds to Mex\$11.9bn. Furthermore, it benefited from a Mex\$2.2bn foreign exchange profit, compared with a Mex\$30bn loss in the comparable quarter last year.

“The operating profits and foreign exchange gains were instrumental in our turning a Mex\$14.1 billion net profit in the

period,” the company said in its earnings statement.

Elsewhere, mobile service revenue grew 5.6% in total, with an 8.3% rise in Mexico, 8.9%, rise in Brazil and a 6.9% increase in the Dominican Republic. There were declines in Peru and Chile, following a reduction in interconnection rates and strong competition. The company’s fastest-growing business by revenue was

fixed-broadband, increasing 7.7%. However, this was offset by declines in pay-TV which slipped by 4.2%.

America Movil ended the period with 278 million subscribers, with its mobile post-paid base up 7.2% year on year, though its prepaid base dropped 3.4%

The company added 1.6 million post-paid subscribers in Q2, mainly from Brazil, Mexico and Austria.

Australia’s broadband boom

 The Australian Department of Communications said the National Broadband Network (NBN) has reached a major milestone with more than 10 million Australian homes and businesses ready to connect to broadband services.

Australia’s largest infrastructure project is on track for completion in mid-2020 and more than 85% of the network build is now complete. Some 5.6 million homes and businesses have already connected to NBN’s broadband services. In the past 12 months, the company has connected an additional 2.9 million Australian premises to internet services.

NBN, the firm building and operating Australia’s broadband access network, announced in July that it has exceeded its rollout and activation targets for FY19. In the three months to June 27th, it connected more than 1.1 million premises to its network, which brought the total number of ready to connect premises to 9.93 million by that date.

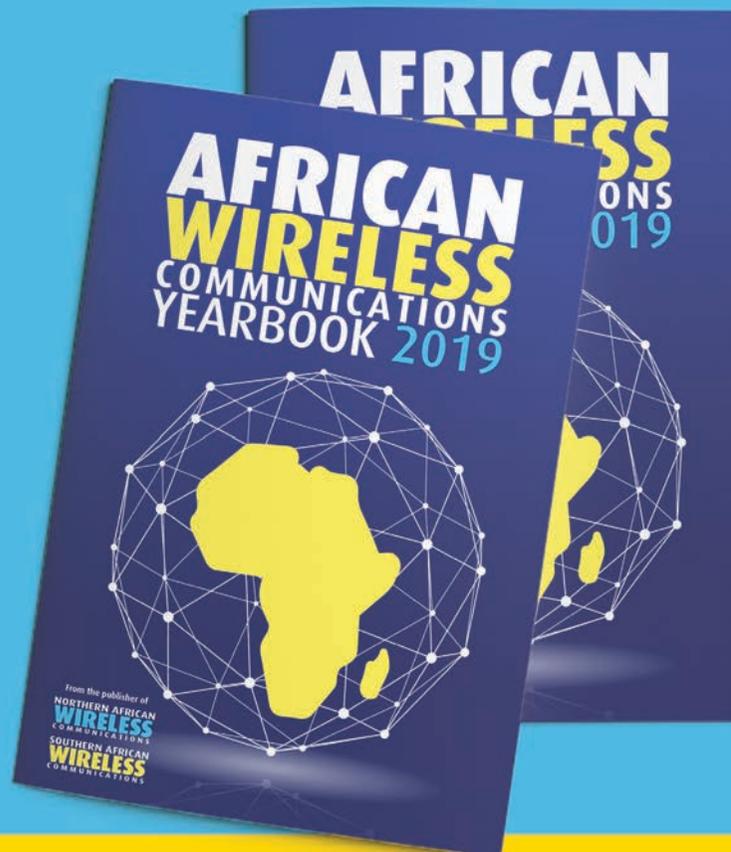
The company’s FY19 forecast target was 9.7 million ready to connect premises.

Research conducted by NBN at the end of May found that 62% of homes and businesses were on a 50Mbps wholesale speed plan or higher, compared with 44% year-on-year.

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Government launch Chad digital review

 The Chadian government has launched its first digital forum “Chad digital” themed “20 years after restructuring of the postal and telecommunications sectors: assessment, challenges and prospects”.

Launched July 11th, telecom minister Idriss Saleh Bachar, said: “Remarkable progress has been made in reducing Chad’s digital gap and consequently setting a new era for the sector.”

Following the restructuring of the Chadian telecommunications sector by the law of August 17th, 1998, the government opened the markets to private investments and Chad welcomed two major private mobile operators as well 18 Internet service providers (ISPs). Between 2014 and 2015, a total of nine laws relating to the postal and electronic communications sector were adopted.

Furthermore, the government implemented a programme to set up community multimedia centres in the country’s 23 provinces. The first three have already been built in Mongo, Abéché and Amdjarass.

As a result, the Chadian telecom sector recorded growth in the mobile phone penetration rate, which is now 48%. However, access to the internet – the foundation of the digital transformation in which Chad has invested so much – has been disrupted for more than a year.

Cambodian police arrest 12 ‘for telecom fraud’

 Twelve Taiwanese nationals were arrested in Cambodia in July for alleged telecom fraud, while Taiwan’s nearest representative office is requesting consular access to visit the suspects.

With the case currently under investigation, the ministry of foreign affairs (MOFA) has instructed staff at its Ho Chi Minh City office to contact Cambodian police and related authorities to get the details of the case and to see if any other Taiwanese were involved.

“We are fully aware of the case in which 18 telecom fraud suspects, including 12 Taiwanese, were

apprehended in Kampong Speu in Cambodia on July 17th,” said MOFA deputy spokesperson Joanne Ou at a press conference. “We are currently requesting consular access from Cambodian authorities to check the condition of the Taiwanese suspects,” Ou said.

While emphasising that MOFA will ask Cambodian authorities to ensure the basic rights of the Taiwanese suspects, Ou also warned Taiwanese nationals abroad to abide by laws of the host country and not to get involved in criminal or illegal activities.

Law enforcement officers confiscated 21 phones, five laptops,

two printers, 33 desktop computers and six walkie-talkies during the operation, according to reports.



Law enforcement officers confiscated various items during the operation

Mauritania needs ‘stronger regulation’ to boost mobile - report

 Mauritania’s telecom sector faces a number of hurdles, though efforts continue to be made to address them with financial support from the government as well as the World Bank and European Investment Bank.

The report by market research and data house Research & Markets said efforts have been focused on implementing appropriate regulatory measures and promoting the further penetration of fixed-line broadband services, by improving the national backbone network. That

ensures connectivity to international telecom cables and facilitates operator access to infrastructure.

However, despite these efforts, it found that Mauritel has maintained “a virtual monopoly” in the fixed-line sector and there is little stimulus for new market entrants. Penetration of fixed telephony and broadband penetration is very low and is expected to remain so in coming years.

Most voice and data services are carried over the mobile networks maintained by Mauritel, Mattel and Chinguitel and the report said

population penetration of 3G is relatively high. However, as yet there are few developments in LTE and as a consequence mobile broadband access speeds are low, placing a break on the potential for mobile commerce and related applications.

The report further found that the regulator, l’Autorité de Régulation, has struggled to enforce good quality of service among these operators, despite fines being imposed. This represents a significant challenge, given the importance of mobile networks for basic telecom services.

Ericsson and Tele2 launch Russia’s first 5G zone

 Rival operators Eir and Three are expected to launch commercial 5G services in Ireland before the end of the year, according to previous reports.

In related 5G news, Ericsson and Tele2 have recently launched what the companies say is Russia’s first 5G zone, in central Moscow on Tele2’s commercial network.

The vendor said that the outdoor 5G coverage is live in Tverskaya Street, the busiest part of the Russian capital.

Ericsson highlighted that the 5G area is ready for demos exploring

the opportunities of 5G, including immersive VR entertainment, smart buildings and other consumer and industrial use cases.

The 5G pilot zone is deployed in the 28 GHz band in non-Standalone (NSA) mode, the frequency band for anchor LTE band is Band 7 (2600 MHz), and the 5G pocket routers supporting 28 GHz are used as end-user devices for mobile broadband services with ultra-high speeds.

Sergey Emdin, Tele2 Russia CEO, said: “The 5G era in Russia has already come – from tests and

laboratory trials, we are moving to operating the technology on a commercial network. In the near future, Muscovites will be able to see for themselves what 5G will bring to the daily life, entertainment and development of smart city.”

Tele2 and Ericsson signed an agreement to deploy 5G technologies in Russia at the Mobile World Congress in Barcelona earlier this year. Under the terms of the agreement, more than 50,000 base stations will be deployed across the country

as part of a five-year network modernization deal. The partners also signed a memorandum of agreement to launch a joint 5G trial zone in Moscow at the St. Petersburg International Economic Forum held last June.

At a global level, the Swedish vendor has already publicly announced 24 wins in the 5G segment. Some key customers include AT&T, Sprint, T-Mobile US, US Cellular, Verizon, Swisscom, TDC, Telenor, Vodafone UK, Wind, Etisalat, Optus, Ooredoo, STC, KT, SK Telecom and Telstra.

Polish regulator calls for legal changes to enable 5G roll-out

 Poland's telecom regulator Prezes Urzedu Komunikacji Elektronicznej (UKE) has urged the government to press ahead with regulatory changes related to permissible radiation levels that are key to rolling out next-generation 5G networks in the country in line with EU requirements.

All EU members are obliged to have an operational 5G network in at least one city by the close of

2020. However, Poland first has to raise the acceptable level for radiation emitted from the highly efficient base stations that must be built for 5G.

"From the point of view of the Polish state, radiation standards for base stations are a major problem in the construction of 5G networks," Marcin Cichy, the head of UKE, told the media.

He added that "Poland will have

to forget about 5G" if it does not allow for higher radiation levels from a single station, or build stations very close together to meet data transmission demand.

Equipment suppliers have previously said that Poland needs to recalibrate power density limits (PEM) – among the most limited in Europe – to allow base stations to generate enough electromagnetic field to make the 5G network function.

Cichy said that sticking to the current PEM limits would significantly reduce telecom operators' willingness to bid for spectrum as it would increase the costs of rolling out the networks.

"If we want to meet the EU goal of launching 5G in Poland by the end of 2020, there are a few months left to convince investment funds and telecoms' shareholders that this problem will be solved," he added.

Síminn and Ericsson to target 5G and IoT

 Ericsson and Iceland's Síminn (Iceland Telecom) have joined forces to speed up the move toward 5G through a core network and radio access modernisation partnership.

As part of its 5G groundwork, Síminn will modernise and expand its radio network and continue to deploy the 5G-ready Ericsson radio system.

Both companies will also conduct 5G trials enabled by Ericsson 5G new radio and Ericsson spectrum sharing. Síminn has targeted the introduction of new IoT services on its 4G network – including narrowband IoT (NB-IoT) and Cat-M1. The deal aims to accelerate the growth of Iceland's IoT ecosystem across a number of diverse use cases. For example, NB-IoT enables low data rate applications in extremely challenging radio conditions, such as connecting utility meters and sensors.

In addition to the radio network, Síminn will also use Ericsson to modernise its core network including Ericsson Cloud Packet Core portfolio upgrades to support the transition from 4G to 5G.

The deal includes geo-redundant Ericsson network functions virtualisation infrastructure operated on Ericsson's blade server platform with Ericsson virtual user data consolidation and Ericsson fast VoLTE. The latter enables HD voice services with simultaneous LTE-speed surfing – paving the way for more advanced communication services.

"We will continue to provide our customers with access to world-class network infrastructure and the services needed to be competitive now and in the future," said Orri Hauksson, chief executive officer at Síminn. "Our customers are used to

Síminn enabling their lives through our networks since 1906, we take that responsibility seriously. We are anxious to make the jump towards 5G with Ericsson's technology like we have for over 100 years."

Jenny Lindqvist, head of Ericsson, northern and central Europe added: "This agreement extends our strong, long-term partnership with Síminn and supports the company in its journey towards 5G. It also shows that Síminn is a front-runner in giving its customers access to the latest cutting-edge technology and services in the advanced Icelandic market."



Jenny Lindqvist,
head of
Ericsson,
northern and
central Europe

PHOTO: ERICSSON

Roussev in for Telekom Romania

 Bulgarian businessman Spas Roussev has

emerged as the favourite to take over the mobile division of Telekom Romania, the local subsidiary of German group Deutsche Telekom.

Roussev has submitted "a binding offer" for Telekom's mobile operations in Romania because Deutsche Telekom is interested in selling its local business as soon as it can.

He is the majority shareholder of Vivacom, which is the biggest telecom operator in Bulgaria.

In addition, Roussev owns the Radisson Blu and Hilton hotels in Sofia and recently took over Deutsche Telekom's operations in Albania for €50m. He is considered a controversial figure due to his connections with Russia and Bulgarian investors and politicians.

Former communications minister Marius Bostan, a member of Telekom Romania's board representing the state, has criticised the potential sale due to concerns about his character.

"A sale to a company in Russia or connected to Russia is unacceptable, considering this is critical infrastructure for the national security," Bostan said.

Deutsche Telekom has a majority stake in Romania Telekom through Greek group OTE while the Romanian state is a minority shareholder, with a 46% stake.

Greece gets €178m EU funding for first mainland to island power link

 The European Investment Bank (EIB) has agreed €178m 20-year loan to finance construction of the first power interconnector between mainland Greece and Crete.

Under the terms of the deal, the EIB will support 50% of the costs of the new electricity link. The Crete interconnector will be built between the Malea peninsula in

the Peloponnese and the island's Kissamos Bay. It will be up to 1,000 metres below sea level and will provide telecom and internet services. Expected to become operational in 2020, the aim of the new transmission link is to reduce carbon emissions.

The new interconnector is expected to supply up to 40% of electricity used on Crete and to enable access to renewable energy

generated elsewhere in Greece and minimise the risk of electricity shortages during peak periods and high seasonal demand.

It will stimulate the development of the wind power sector and hybrid renewable energy on the island and will allow for strong and regular winds on the island to provide clean power for the rest of the Mediterranean country.

Mytel carries out 5G trials

 Myanmar's Mytel has carried out 5G technical trials on the 3.5GHz band as part of preparations to launch commercial service after deploying sufficient network infrastructure. The county's fourth largest operator, a joint venture between a consortium of local companies in Myanmar and the Vietnam-headquartered, military-run Viettel said the tests achieved peak download speeds of 1.6Gb/s and were the first 5G technology trials in the nation. Mytel started out in June 2018 once it was awarded Myanmar's fourth mobile licence in January of the year before.

India will not compromise

 India will not compromise on security of its telecom networks and accords high priority to data sovereignty, said minister of state for communications Sanjay Dhotre. The comments against a backdrop of the US's concerns over deployment of Huawei telecom gear in new and upcoming networks. The Chinese tech giant has been under scrutiny in some markets for its alleged links to the Chinese government and the Donald Trump administration has consistently warned that Huawei products could be used to spy on or harm networks. The company has strongly denied all allegations.

TRA requests public views

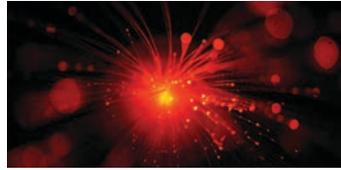
 Oman's Telecommunications Regulatory Authority (TRA) has requested public views on the facilities they want to see in a new telecom network that will be set up in the country, with the aim of providing good quality, reliable services. TRA said it had developed its first draft proposal for indoor infrastructure after several discussions with stakeholders in the telecom sector, as well as public institutions that will form part of this new network.

Liquid connects South Sudan to the rest of the world

 Pan-African business Liquid Telecom will implement and operate South Sudan's first fibre broadband network, connecting the country to the "One Africa" broadband network, which is approaching 70,000km across 13 African countries and to the rest of the world.

Phase one of the agreement, signed between National Communication Authority and Liquid Telecom, will include a 300km fibre backbone operating from the border of Uganda, through South Sudan, to Juba. Multiple metro clusters will also support the capital city. This first phase is scheduled to go live in the last quarter of this year. The network will be expanded to other cities in subsequent phases.

South Sudan will link to Liquid's network across the region which covers the East African Community, a regional intergovernmental organisation of six partner states; Burundi, Kenya, Rwanda, South Sudan, Tanzania, and



Liquid say phase one is due to be completed by the end of 2019

Uganda. It is thought the network will connect up to 300 million people.

"The implementation of this critical fibre infrastructure is a landmark step in the delivery of affordable communications access to the people of South Sudan, the business community, government and civil society," said Salva Kiir Mayardit, president of South Sudan. "By connecting South Sudan to the global internet, this important infrastructure development will help improve social mobility, enable economic diversification and drive inclusive private sector-led growth and productive employment." He said the agreement was also ideally timed, coinciding with the

signing of the Revitalised Agreement on the Resolution of Conflict in the Republic of South Sudan.

Strive Masiyiwa, executive chairman of Econet Global and Liquid Telecom added: "This modern ICT infrastructure will help address the most pressing challenges within South Sudan, including the urgent need for peace and state building, job creation and improved livelihoods. South Sudan's 13 million citizens will be connected to 300 million people across the East African Community. Connecting South Sudan to the 'One Africa' broadband network will also champion pan-Africa trade and help build Africa's digital future."

With phase one due to be completed before the end of 2019, Liquid's network will eventually provide reliable and affordable internet connectivity for nearly 13 million citizens of South Sudan, as well as for businesses, government institutions and non-governmental organisations.

Telecom Argentina opens new store

 Telecom Argentina (Telecom) announced the opening of a new store in the city of Venado Tuerto, Santa Fe.

The "convergent" outlet offers services from all its brands – personal, fibertel, cablevision and telecom.

It is the second convergent shop to spring up in the Sante Fe province, after a first outlet was

opened in June in Rosario.

Sales and after-sales services are available for fixed, mobile, internet and cable television services.

Telecom said this is part of a wider investment in Venado Tuerto and the company plans to spend over \$USD9.7m in the city in expanding its network for internet access, mobile data and fixed and cable services.

Meanwhile, Telecom reported first-half revenues down 11.5% year-on-year to ARS\$

94.8bn after adjusting for inflation. The company said it managed to increase billing at a faster rate than inflation late in the period, due to customer demand for higher value services and despite the challenging economic climate.

Mislattel rebrands after gaining licence

 New Filipino operator Mislattel has been granted its mobile licence and has marked the occasion by rebranding to Dito Telecommunity.

President Rodrigo Duterte presented the operating licence to Dennis Uy, the highest-profile figure from the consortium that owns Dito, which is comprised of Uy's Udenna Corporation, its distribution subsidiary Chelsea Logistics Corporation and China Telecom.

The Certificate of Public Convenience and Necessity

(CPCN), grants Dito permission to operate 4G services in the 700 MHz, 2100 MHz, 2.5 GHz, 3.3 GHz and 3.5 GHz bands.

Pilot tests are due to be carried out later this year with a view to launching commercial services in 2020. Under the terms of its licence, Dito has committed to delivering an average speed of 27Mbps to just over 37% of the population within its first year of operation.

Duterte has called on Dito to mount a challenge to two dominant

rivals in PLDT and Globe Telecom.

"Let me take this opportunity to pose this challenge to Mislattel: Break the prevailing duopoly in the telecommunications industry and fulfil your commitment to provide better telco services to our people," he said. "Let us take the entry of this (new) telco player as a breath of fresh air in our rapidly evolving information age, where no one should be left behind in our pursuit of an inclusive and sustainable progress for all Filipinos."

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