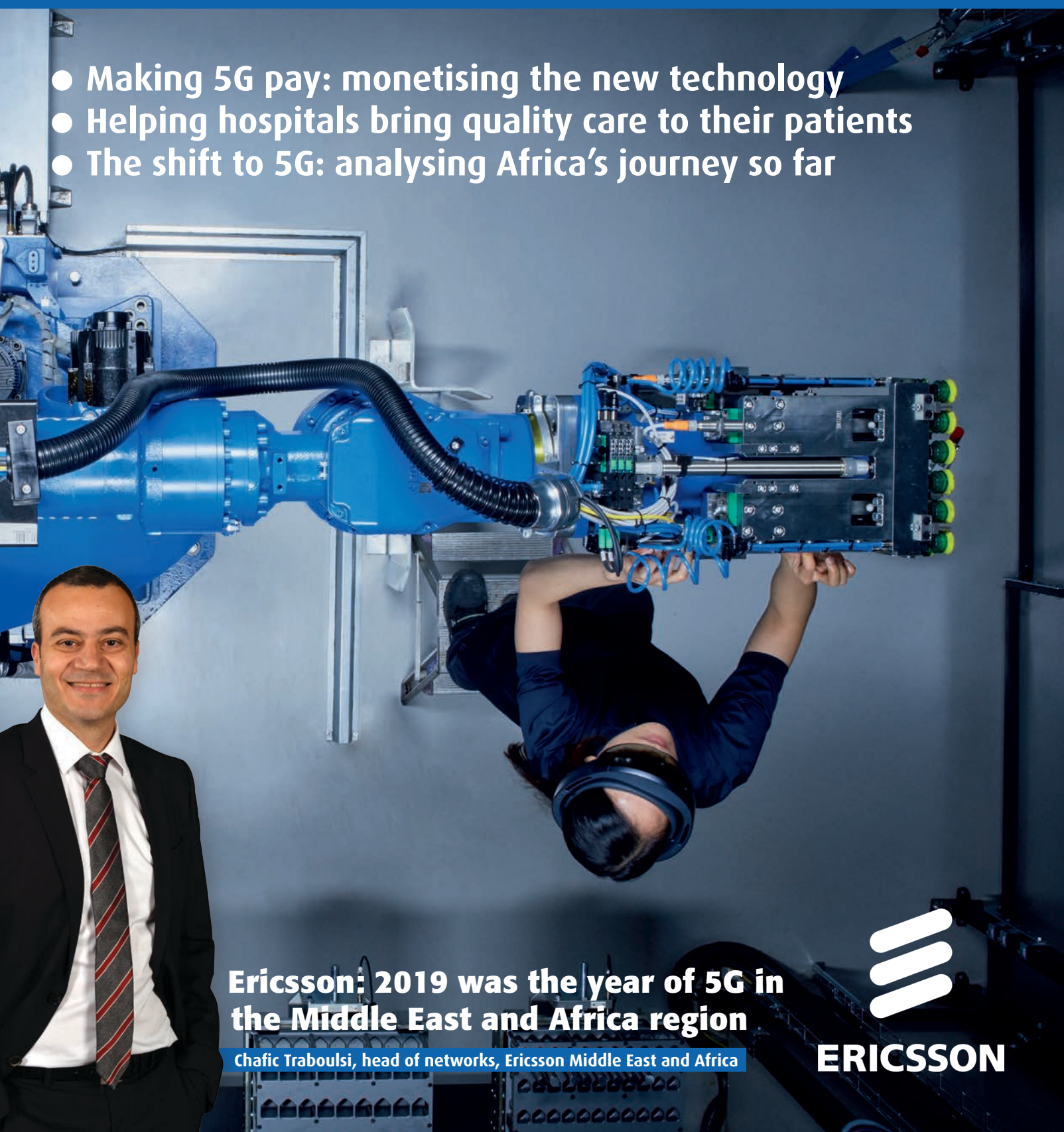
For communications professionals in north, west, east & central Africa

NORTHERN AFRICAN WIRELESS COMMUNICATIONS

DECEMBER 2019/JANUARY 2020 Volume 18 Number 6

- Making 5G pay: monetising the new technology
- Helping hospitals bring quality care to their patients
- The shift to 5G: analysing Africa's journey so far



Ericsson: 2019 was the year of 5G in the Middle East and Africa region

Chafic Traboulsi, head of networks, Ericsson Middle East and Africa

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KADIUM

Moving Wireless Forward

Mobile Mark is a leading supplier of innovative, high performance antennas to wireless companies across the globe. We've been in the wireless industry for over 30 years and have our roots in the early Cellular trials. We have grown and evolved over the years, along with the industry.

Today, we benefit from enhanced design capabilities and expanded production capacity – along with a greater understanding of new and emerging markets – all of which have allowed us to become one of the best antenna developers in our field.

Our customers have been our partners throughout the years. We believe in taking the time to understand our customers' individual needs. Through close consultation with clients, we are able to deliver innovative, tailored solutions that meet specific antenna requirements.

Rapid prototyping capabilities allow us to take our designs from concept to reality in an extremely short time span, and to verify the performance of the antenna. A variety of network analyzers and an anechoic chamber enable us to conduct measurements up to 13 GHz, and ensure that the antennas designed meet or exceed customer requirements.

We have onsite injection molding equipment and a fully equipped modeling shop staffed with skilled model makers to assist in the design phase and help us come up with a superior product – an antenna that not only meets the customer's electrical specifications, but is also very attractively packaged.

Mobile Mark antennas are used in many sectors of the wireless industry. Here are just a few examples:

Asset Tracking & RFID

Managing and tracking important assets can be a challenge in the field, and both RFID and WiFi offer effective wireless solutions. RFID / WiFi technology allows us to identify, monitor and track items ranging from medicine to fruit to parcels to people. Since each application has its own challenges, Mobile Mark offers a range of antennas so network developers can choose the right mix.

MobileMark
antenna solutions

We are now looking for distributors throughout Africa

Commercial Fleet Management

Mobile Mark has consistently lead the industry with the most extensive and innovative range of antenna solutions that combine multiple wireless technologies: from simple GPS & Cellular antennas to complex 6-cable antennas combining LTE MIMO, WiFi MIMO, DSRC and GNSS in the same antenna housing. This combination of wireless technologies allows fleet owners to track and/or redirect their fleets of cars and trucks for optimum efficiencies. Mobile Mark antennas are rugged enough to handle tough environments and efficient enough to maintain reliable connections.

Public Transit & Bus Management

From monitoring the location of the bus to monitoring the condition of its tires, wireless has become an essential part of professional bus management. Mobile Mark's multiband antennas allow the system to capture that information and transmit it back to a central monitoring station with real-time connectivity. For an added touch, real-time WiFi service can also be added for the passengers. That's why companies like INIT have selected Mobile Mark antenna to complete their product offerings. And they have made the following endorsement:

"INIT GmbH – as a worldwide leading supplier of integrated planning, dispatching, telematics and ticketing systems for buses and trains – uses Mobile Mark bus antennas in public transportation projects all over the globe.

For example: INIT has installed Mobile Mark antennas in projects located in Abu Dhabi, Hertfordshire UK, Turku Finland, Oslo Norway, Montreal Canada, Luxembourg, as well as several German projects.

In 2017, a fleet of more than 1,500 buses will have Mobile Mark Antennas installed in one of INIT`s current major projects for National Express, West Midlands, UK."

Remote Monitoring & Surveillance

Surveillance plays an important role in maintaining secure settings. Network deployments need to be low maintenance and weather resistant. Broadband surface mounts offer flexibility for multi-frequency coverage and are rugged and dependable. YAGI antennas provide practical point-to-point coverage. Our antenna solutions are designed to handle tough conditions while providing the reliable wireless connection you would expect from a Mobile Mark antenna.

Mining & Exploration

Modern mining operations rely on a battalion of vehicles, ranging from massive extraction vehicles to modest-sized material transport trucks. These vehicles operate in tough environments where high vibration is a frequent wear and tear challenge. Mining companies throughout Africa have relied on our rugged, foam-filled mobile antennas for consistent connections. Mobile Mark's infrastructure antennas have been used for rapid deployment and redundancy coverage for effective wireless coverage in isolated settings.

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For cities and highways, the lynchpin of a successful "Smart" system will be dependable wireless connections. Companies like Kapsch understand this, and have worked with Mobile Mark to find ideal antenna solutions. Wireless networks must reach seamlessly into hard-to-cover corners of city intersections and along vast expanses of highways. They must be carefully embedded in city lighting and electrical meters. Mobile Mark offers both small network infrastructure as well as embedded antenna elements to help network designers tie all the pieces together.

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Asteroid lands in Mombasa

Asteroid International, the global interconnection platform innovator, has launched a state-of-the-art and highly automated Internet Exchange Point (IXP) solution in Kenya's oldest city.

Located in the modern, hyper connected, carrier neutral icolo facilities in Mombasa, the Asteroid IXP will enable much improved internet interconnection in east Africa and support the region's strong digital growth.

The exchange point already has US tech giants such as Facebook and Google present, as well as several local Kenyan and African networks.

"We are very proud to deploy an exchange point in Kenya", said Asteroid chief executive officer (CEO) Remco van Mook. "Mombasa is the perfect place to interconnect the region using the world class icolo facilities. There is a tremendous need for modern, well-run, cost effective IXPs in Africa."

Van Mook added that the Asteroid IXP will provide modern interconnection and contribute to improved internet accessibility by lowering costs and better internet performance for users in region.

An IXP allows many different internet businesses to come together and exchange traffic locally and efficiently, through "peering". The Asteroid IXP platform is built on lightweight, scalable architecture and advanced toolsets. Designed with automation at the core, the Asteroid solution provides security from day one, a modern feature set, it has been heralded by some as most efficient and cost effective solution on the market.

PHOTO: HTTPS://BIT.LY/318Q9LE

Located Mombasa, the Asteroid IXP will enable much improved internet interconnection in east Africa

"We are very excited to partner with Asteroid," added icolo CEO Ranjith Cherickel. "Asteroid brings considerable experience from the interconnection space. Their ultra-modern IXP solution at the icolo data centre, will not only help to significantly improve the performance between ISPs in the region, but also attract new players to the country and boost the interconnection growth more broadly."

Mobilis gets Mali nod

Algérie Télécom subsidiary Mobilis is ready to become the latest player to enter Mali, having been awarded an operating licence to deploy services nationwide.

The award – which includes rights to offer 2G, 3G and 4G services – was confirmed by Modibo Arouna Touré, Mali's minister of the digital economy and communication, under a provisional agreement with the government. Although the final terms are yet to be negotiated regarding the setting up of a new subsidiary for Algérie Télécom, Touré said company officials are expected in Mali 'in the coming weeks' to 'sign documents and concretise the latest steps, including financial, and start construction work of the network'.

Mobilis will be the fourth operator in the domestic mobile market, joining established players Orange Mali, Alpha Telecom and Malitel, the mobile arm of fixed line incumbent SOTELMA.

The award more than a year after Algeria's telecoms minister Houda Imane Faraoun confirmed that Algérie Télécom's cellular unit had applied for the fourth licence.

Algeria and Mauritania in fibre optic link up

Algeria has completed a 75km cross-border fibre-optic network link with Mauritania.

The deployment of the section was announced by Algeria's minister of post, telecommunications, technology and digitalisation, Houda Imane Faraoun.

Algeria is progressively forging links with other markets, having recently completed a 440km terrestrial fibre route over its southern border into Niger in November of last year.

Following extensive delays, Africa's largest country by land mass is also now connected to Spain via the 770km Oran-Valencia (ORVAL) submarine cable, a partnership between Algérie Télécom IslaLink and ASN.

Originally scheduled to launch in mid-2017, the cable can be upgraded to a capacity of 40Tbps and will offer Algeria more diverse international routes.

Nigerian telecom services 'one of the best in the world'

The quality of telecom services provided by Nigerian operators is up there with the best in the world, according to the Association of Licensed Telecommunications Operators (ALTON).

Its chairman, Engr Gbenga Adebayo, also said despite the extremely high operating costs of providing such services in the west African nation, the telecom industry is the only sector in which prices have remained stable.

"In the first place, we make bold to state that the quality of telecoms services in Nigeria is amongst the best in comparable jurisdictions," Adebayo said in a statement.

The chairman also said ALTON members will battle the government at every level if it aggressively harasses them to pay both legitimate and illegitimate taxes and levies – amounting to several million Naira in some cases – and still provide quality services to consumers.

MainOne's submarine cable ready for service in Côte d'Ivoire

MainOne, a provider of telecom services and network solutions for businesses in west Africa, said its submarine cable in Côte d'Ivoire is live and ready for service.

The company added that the project is notable for being the first commercial cable system in service to deploy spectrum-sharing capabilities. It also said the new service will offer capabilities to deepen infrastructure sharing and lower the cost of delivering broadband services to the region.

The network will maintain direct connections to various regional and global internet exchanges including the Nigerian Internet Exchange (IXPN), Ghanaian Internet Exchange (GIX). It will do likewise with Europe's London Internet Exchange (LINX) and Amsterdam Internet Exchange (AMSIX).

MainOne said its network will deliver affordable and scalable broadband services, together with secured and reliable solutions, providing support services for service providers in Cote d'Ivoire. This, it added, will offer optimised internet connectivity for business, as well as providing point-to-point International Private Leased Circuit (IPLC) communication services for businesses and enterprises, riding on its submarine cable along west Africa to the rest of the world.

ETC looking for $1.3m funding boost

A global network of organisations working to provide shared communications services for humanitarian emergencies needs US$1.3m to operate effectively in the Central African Republic (CAR) in 2020.

The Emergency Telecommunications Cluster (ETC) requires the funds mainly for the purchasing of relevant equipment, which will support the Telecommunications Security Standards (TESS) recommendations to enable emergency responders to communicate in deep field areas in the conflict prone CAR.

One planned exercise is the radio programming training for United Nations (UN) and non-governmental organisations (NGO) staff in the city of Paoua and to deploy radio and satellite equipment, as recommended by TESS.

Partnerships have been secured with two local partner organisations to host the designated phone booth for affected communities in the central Bria and managing the Information and Learning Hub for affected communities in the city of Bangassou.

At the UN Mission in CAR (MINUSCA)-hosted site, it set up a Security Operations Centre (SOC) and deployed a dedicated NGO very high frequency (VHF) channel, monitored by a dedicated VHF base station.

All required reprogramming of equipment for UN agencies and NGOs and maintenance of current communications infrastructure was also carried out.

Uganda now blocking fake devices

Uganda has taken major steps to prevent the use of counterfeit phones by installing a central equipment identity registry.

The move by Uganda Communication Commission (UCC) came on the back of an increased influx of fake mobile handsets into Ugandan market in late 2019. Ibrahim Bbosa, director of public and corporate affairs at UCC, said the central equipment identity registry is to be linked to in each of the telecoms operator systems.

"As I speak the system is analysing to see how many phones in our market are genuine and those that are counterfeit" he added.

Local media also reported that while the machine will not stop counterfeit phones already in use, it will be able to prevent operation of new fake handsets.

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UCC said the system will cluster mobile users under the three separate lists—the white list which will have genuine phones, a grey list that will have phones that are either roaming and a black list that will not allow a counterfeit handset to operate on any network.

PCCW Global to extend PEACE cable network to southern Africa

PCCW Global and PEACE Cable International Network have partnered to extend the Pakistan East Africa Connecting Europe (PEACE) submarine cable system to southern Africa.

The PEACE South extension will boost bandwidth and have an important impact on connectivity from its current African landing point in Mombasa, Kenya, all the way to South Africa. This will open new Southern African Development Community (SADC) and east African markets to cable partners.

PEACE South will also provide alternative routes for existing systems, connecting southern Africa to Europe and Asia with newer, faster high-bandwidth technology and assisting the region to improve internet usage and reduce the cost of connectivity.

"Since the construction of Peace East and Peace Med are both expected to be completed on time, on budget and within the originally specified plan of work," said Frederick Chui, chief commercial officer of PCCW Global. "The planned extension through Peace South is a natural expansion for Asian investment in Africa, enhancing cooperation and shared economic benefits in the exchange of goods, technology and ideas."

The southern Africa extension follows the overall success of the cable development project and the smooth implementation of operations, from survey activities and the issuing of the relevant country permits through to manufacturing and factory acceptance.

When completed, the high-speed PEACE cable system will offer very low latency routes from China to both Europe and Africa, interconnecting three of the world's most populous continents.

The news follows the announcements in September 2019 that PEACE, together with Liquid Telecom and Africa Data Centre, signed a landing party agreement (LPA) for a landing point in Kenya. It respectively signed a deal with PCCW Global and Orange to deploy the new PEACE Med subsea cable at a landing station in Marseille, southern France.

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Nigeria expects 2020-2025 broadband plan to be ready in Q1

The Nigerian government said the 2020-2025 Broadband Plan will be ready within the first quarter of 2020.

According to reports, the country's minister of communications and digital economy Isa Pantami said the government and ministry are encouraging institutions to host their data in Nigeria, as advocacy continues. Pantami said the need to increase broadband penetration from 37.8% currently to over 70% in the next five years was the pedestal for NBP 2020-2025.

The plan should service some 195 access gaps in the west African nation, where some 190 million people reside. Nigeria's population is set to double to more than 400 million by 2050, when it will have overtaken the US as the world's third most inhabited nation.

Pantami also said pervasive broadband penetration will make Nigeria a truly digital economy. A 25-member committee, led by MainOne Cable chief executive officer (CEO) Funke Opeke, has been inaugurated and the team is expected to come up with a plan by the end of the first quarter.

The plan should service some 195 access gaps in the west African nation, where close to 190 million people reside

It is also expected to take a critical look at where the country is, after review of the 2013-2018 phase and the status of penetration now. The members were enjoined to examine the challenges with a view to proffering solutions.

Morocco: customers can transfer numbers in two days

Subscribers to Maroc Telecom, Orange and Wana Corporate (Inwi) can now transfer their fixed and mobile numbers to either rival within two days.

Moroccan regulator l'Autorité nationale de régulation des télécommunications (ANRT) has introduced a centralised number portability database (BDCPN), in collaboration with the three operators, in a bid to speed up what had become a lengthy process.

"The establishment of the BDCPN constitutes a regulatory lever which should help to develop competition in the market segments concerned and streamline the porting process," the ANRT said in a statement. "The BDCPN will contribute to the automation of portage request management flows between the operators by promoting implementation of direct routing of calls to ported numbers."

In the third quarter of 2019, the telecom regulator recorded a total of 775,316 carry requests for mobile numbers and just 37,583 for landline numbers.

Tunisian govt to launch SMS disaster alerts under GSMA 'We Care' scheme

The Tunisian government has partnered with the country's mobile operators to develop an SMS-based early warning system to alert the public to risks of major natural disasters.

It forms part of the launch of the GSMA's 'We Care' initiative in Tunisia by Ooredoo, Orange and Tunisie Télécom and is the first launch of 'We Care' in the Middle East and North Africa (MENA).

The initiative is a collaboration with the Tunisian ministries of Interior and ICT. All parties are also committed to a Declaration of Intent.

This new service will use text messaging to provide information before and during major natural disasters, improving preparedness and response. When a major risk is identified, the Ministry of Interior will send notifications to the mobile operators based on recommendations from the National or Regional Natural Disaster Committees.

This new service will use text messaging to provide information before and during major natural disasters, improving preparedness and response

These notifications will include the content of the alert to be broadcast and the location of the area concerned. It will then be the operators job to send an appropriate SMS alert to people in the affected areas. The service is expected to be in place before the next rainy season of 2020, likely to begin in September.

Mauritania trio hit with new year fines

Mauritania's regulator Autorité de Régulation started 2020 in aggressive mode by fining operators Mauritel, Mattel and Chinguitel a total of US$3.83m.

The three companies are alleged to have breached their quality of service obligations. Leading operator Mauritel, a subsidiary of Maroc Telecom, was fined US$2.30m.

The company Mattel, a subsidiary of Tunisie Télécom, has been fined US$ 890,960 and Chinguitel, a subsidiary of the Sudanese Sudatel, will have to settle a sum of US$637,290.

The regulator imposed the sanctions after it gave the various players the opportunity to explain the poor quality of services that persists on their respective networks and causes perpetual discontent among consumers. According to the regulator, the reasons given by Mauritel, Mattel and Chinguitel were found to be irrelevant.

This is the second year in a row that telecom operators have started under a financial penalty. Mauritel, Mattel and Chinguitel were fined US$1.61m at the start of 2019 for "service failure".

UK's Lycamobile launches in Uganda

Virtual mobile network operator Lycamobile has officially started operations in Uganda.

During a press conference held in mid-January 2019, the London-based company revealed that it wanted to help give customers access to better quality voice and data services "at the best prices".

Lycamobile is expected to sign a contract with Tangerine Internet Services, one of the first providers to launch LTE in the country, to rely on its telecom equipment.

"We want to have unmatched 4G Internet and we hope to roll out our services across the country in the next six months," said Jeya Seelan, general manager of Lycamobile. "We hope to create more than 600 jobs, directly and indirectly, but also to expand the telecommunications market. We are going to employ local labor in order to create jobs, which is one of the ways to make an impact on Ugandan citizens. "

Lycamobile will sign a contract with Tangerine Internet Services, one of the first providers to launch LTE in the country, to rely on its telecom equipment

Gavin De Costa, the head of economic and trade policy at the British High Commission for Uganda and Rwanda, said the launch by Lycamobile of its activities in the country will further strengthen ties between the United Kingdom and Uganda.

Uganda: police arrest eight for fraud

Ugandan police arrested eight people in connection with telecom fraud in the capital Kampala, late January.

The raid, in collaboration with the Uganda Communications Commission (UCC), also saw the police confiscate 1,500 SIM cards and four SIM boxes.

Furthermore, the regulator reported that a SIM box 545 SIM cards were retrieved from Masanafu, in the Rubaga division, while three people were arrested.

At Clement Hill Road, two people were arrested and a SIM box was seized. Meanwhile, at Nakawa market, two additional SIM boxes were taken with over 1,000 and one person was arrested. Two other people suspected of illegally providing SIM cards were also taken to custody.

According to Ibrahim Bbossa, the head of public and international relations within the national telecom regulatory body, due to the strengthening of security measures for the purchase of a SIM card, telecom fraudsters have started to source them from phone thieves.

Bbossa said criminals sell SIM cards to telecom fraud networks at the price of USh 100,000 per card.

SIM boxing is the illegal electronic process of setting a device that can utilise several SIMs and use them same to complete international calls received from the internet as voice over IP (VoIP). The calls are then served to the in-country mobile network subscribers as "local traffic".

During that process, the SIM boxer or criminal bypasses international call rates and undercuts the tariffs charged by local mobile operators.

China and Ethiopia make satellite pact

China will help Ethiopia build a continental satellite data receiving station, according to the director general of the Ethiopian Institute for Space Science and Technology (ESSTI).

Speaking to China's Xinhua news agency, Solomon Belay said the partnership al includes training programmes for Ethiopian space engineers, while assistance to Ethiopia for the launch of space satellites is being negotiated.

The technological infrastructure, expected to be completed in the next three years, is said to be ideally located in the capital Addis Ababa, which is also home to the headquarters of the African Union (AU).

The east African nation is in the process of opening up to foreign investment and is determined to capitalise on Chinese knowledge to learn more and contribute more to the satellite communications space.

MTN accused of paying bribes to Taliban and al-Qaeda

The continent's largest mobile operator, MTN, said it is reviewing allegations that it paid protection money to militant Islamist groups in Afghanistan.

Allegations made in a legal complaint filed in a US federal court in late December claim the South African telecom giant violated US anti-terrorism laws. It was filed on behalf of families of US citizens killed in attacks in Afghanistan.

The complaint, made under the Anti-Terrorism Act, alleges MTN paid bribes to al-Qaeda and the Taliban to avoid having to invest in expensive security for its transmission towers.

These alleged payments are claimed to have helped finance a Taliban-led insurgency that led to the attacks in Afghanistan between 2009 and 2017.

It has also been alleged that the money helped to provide "material support to known terrorist organisations," thus violating the anti-terrorism legislation.

MTN said it still held the view that it conducts its business in a "responsible and compliant manner in all its territories".

The company has over 240 million subscribers, making it the eighth largest operator in the world.

In 2015, the firm was fined more than $5bn (£3.8bn) by the Nigerian authorities for failing to cut off unregistered sim cards - a figure that was reduced to $1.7bn after a long legal dispute and the intervention of South Africa's then president Jacob Zuma.

In February 2019, a former South African ambassador to Iran was arrested in the administrative capital, Pretoria, on charges that he took a bribe to help MTN win a US$31.6bn (£24bn) license to operate in Iran.

Other companies named in the filing include UK multinational security services company G4S Holdings International and its subsidiaries and four American corporations, which stand accused of funding the Taliban Haqqani Network, Pakistan Taliban and their allies.

Uganda, Tanzania SIM policies questioned

Uganda and neighbouring Tanzania have in place some of the harshest SIM card monitoring policies in the world, according to a new report.

Research conducted by UK-based pro-consumer website Comparitech said based on a point scoring metric of 0 – 21 (policy portfolios are evaluated from strongest to weakest –the lower the score, the stronger the portfolio), Uganda scored 15 while Tanzania scored 19.

To make things worse, Uganda scored the same as North Korea, a country known for trampling on the privacy of its citizens.

The report highlighted Burundi, Kenya and Rwanda among those African countries with relatively good SIM card monitoring policies. Kenya scored 12 points, Rwanda scored 11 points and Burundi scored nine points.

Elsewhere, the Democratic Republic of Congo (DRC) and Ethiopia each scored eight points.

Tanzania and Uganda have adopted biometric SIM card registration and the relevance of this is reflected in parts of the report.

"A SIM card is more than a phone," read an excerpt from the report. "It allows authorities to track people's locations and movements and all of their online activities-websites visited, search queries, purchases, and more can be traced back to their devices."

It also said that creating a database of citizens and their mobile numbers restricts private communication, increases the potential of them being tracked and monitored, enable governments to build in-depth profiles of their citizens and risks private data failing into wrong hands.

The reason Tanzania had a poorer rating than Uganda, the report said, was because individuals are allowed up to eight SIM cards from different service providers. This is exacerbated by the fact the country's law enforcement does not have invasive interception tools, although it can access data without a warrant.

Uganda started a mandatory sim-card registration in 2012, mainly to fight crime.

Huawei looking to launch 5G in Morocco

Chinese tech giant Huawei has stated it's intentions to work with Moroccan partners to launch 5G in the north African nation.

Philippe Wang, vice president of Huawei North Africa, made the admission in January when addressed a delegation of Moroccan businessmen in Beijing.

According to Huawei, a 5G collaboration should bring Morocco closer to its ambition of digital transformation and help make it technological centre in Africa.

Huawei is already supporting Morocco through various investments and China has committed to eight Moroccan universities for the training of 12,000 students in the ICT sector for a period of three years. It also wants to support the public administration in the digitisation of its services.

Huawei sees Morocco as a market with high potential, enjoying political stability, appreciable economic development, a fairly supplied infrastructure and a qualified human resource.

Huawei sees Morocco as a market with high potential, enjoying political stability, appreciable economic development, a fairly supplied infrastructure and a qualified human resource

Nigerian watchdog warns peddlers of non-type approved equipment

Peddlers of non-type approved telecom equipment in Nigeria, have been warned to stop or risk a jail sentence as well as including payment of fines.

The Nigerian Communications Commission (NCC) said at a Sensitisation Workshop on Equipment Type Approval in Lagos, the law empowers it to carry out type approval of all communications equipment for use in the Nigerian market.

In his opening remarks, the Director, Technical Standards and Network Integrity, NCC, Bako Wakil, quoting the Nigerian Communications Act 2003 Section 132 (2), said: "Licensed service or facilities providers, equipment manufacturers or suppliers shall obtain type approval certificates from the Commission in respect of their communications equipment or facilities prior to installation or sale in Nigeria."

Cape Verde boss calls for extra capacity

Cabo Verde Telecom has requested 10G of capacity from Altice Portugal to help restore the country's internet, which has been unstable since late January due to failures at its international provider.

The president of the state-run operator said the company asked Altice Portugal for 10 gigs of capacity to restore the internet in the country, unstable due to failures of international supplier, TATA Communications.

At a press conference in Praia, Santiago island, José Luís Livramento, began by clarifying that internet cuts in the country are not a problem for the operator, but for TATA.

The operator said they asked Altice Portugal for 10 gigs of capacity to restore the internet in the country, unstable due to failures of international supplier, TATA Communications

"Unfortunately, TATA (internet service provider) had a cut in this Lisbon-Madrid route and no longer had access to the internet from Lisbon", said Livramento.

The president added that the loss of the internet in the country happened in late January and that since then TATA has been trying to repair the cable to restore the service.

"In view of this, we were not only in this dependency. We tried to solve it in other ways and we are counting on Altice to give us about 10 gigs of capacity to restore the service, " he said.

Orange announce tariff hike

Orange Burkina Faso has announced a tariff "readjustment" from February 17, 2020, which means an increase of around 2.04% on all offers and services. The operator's decision stems from "the entry into force of the finance law for the execution of the state budget, financial year 2020, which increases the rate of the specific tax on telecommunications companies to 7% of sales ". This announcement provoked a strong reaction from consumers who denounced an increase in prices while the quality of services remains poor.

Celltel looks to local firm

Ghanaian technology company Celltel Networks has appointed local finance company Ed & Co Capital as financial advisors for the US$500m Ghana Smart Cities project. The idea is to provide an affordable nationwide Wi-Fi network in collaboration with local government institutions and other strategic and relevant government agencies in the west African nation. It is scheduled to begin in the second quarter of 2020.

MTN Uganda predict failure

A move by the Ugandan government to require foreign-owned telecom firms to list on the local bourse may fail to achieve its goal of boosting Ugandan ownership in the sector. That is the view of MTN Uganda's chief executive Wim Vanhelleputte, who told newswire Reuters that instead of the listing requirement, the government should allow foreign firms to sell stakes to vetted local investors via private placements. The government plans to issue all telecom firms with new operating licences by June under a new regime.

Talking satellite

Martin Jarrold, chief of international programme development, GVF

CABSAT 2020: The Satellite Industry's Summit Agenda

GVF has been a Supporting Association of the Dubai World Trade Centre's CABSAT exhibition for several years. 2020 brings the 25th event with a Content Distribution section representing the satellite industry ecosystem. Embedded in the exhibition, the GVF SatExpo Summit, 31 March to 2 April, will feature keynote addresses, themed interactive sessions, and special focus sessions.

Keynote Addresses open the programme. Perspectives from the UAE Telecommunications Regulatory Authority (TRA) and the International Telecommunication Union (ITU) Radio Communication Bureau Space Services Department will include exploration of the outcomes of the ITU World Radiocommunication Conference 2019 (WRC-19) – held last November in Egypt – and agenda items for WRC-23. WRC meetings review, and, if necessary, revise the Radio Regulations, the international treaty governing the use of the radio-frequency spectrum and of geostationary satellite (GEO) and non-geostationary satellite orbits (NGSO).

Space Segment Disruptive Evolution is the theme for the first moderator-led panel session. David Meltzer, Secretary General, GVF, will steer a dialogue on rapid changes in in-orbit technology. The latest GEO high throughput satellites (HTS) are close to achieving near-terabit capacity, existing medium Earth orbit (MEO) constellations are evolving into more powerful systems, and the first of the low Earth orbit (LEO) mega-constellations are launching. Other issues for discussion are the phenomenon of small satellites and generational disruption: miniaturisation and low-cost manufacture, link budgets, latency and constellation functionality, and new customer markets and applications.

Stéphane Chenard, Senior Consultant, Euroconsult, will moderate Ground Segment Disruptive Evolution. As with space segment, infrastructure on the ground is undergoing a game-changing shift. Amongst other trends, teleports are evolving, and antennas/terminals are expected soon to feature cost-effective form-factor and performance departures from the traditional parabolic paradigm. Points of discussion will include teleport operations virtualisation, and the Cloud; the ecosystem of new antenna/terminal technologies; and, meeting the demands of wider markets.

New to the industry lexicon is the term NewSpace. Much has been written about this, sometimes referencing other terminology: Space Industrialisation, Space 2.0, the "New Space Race". Session moderator Virgil Labrador, Editor in Chief, Satellite Markets & Research, will frame a dialogue for Space Industrialisation and Emergent NewSpace, beginning from the premise that space is no longer the sole preserve of agencies and big commercial players. Smaller private companies are propelling the sector vigorously forward. The industry is undergoing an entrepreneur-driven industrialisation process going beyond the potential offered by the 'smallsats' segment. Discussion will question "What are the limits to NewSpace?", with reference to: Artificial Intelligence (AI)/machine learning; the Industrial Internet of Things (IIoT); orbital connectivity drivers to space industrialisation; new applications; and, competition for customers.

Increasing use of satellite in the maritime sector continues. As the session Verticals: Maritime will examine, it is a vibrant market as ship-owners transition to next generation connectivity. The merchant, passenger and leisure segments are all yielding revenue growth and a re-bounding oil pricing accelerates the offshore segment. Dialogue here will cover: HTS oceanic coverage and capacity trends; capacity and terminal pricing trends and demand forecasts; value-added services and operations outsourcing; and, drivers of new generation satellite system purchases.

GVF has a long-standing engagement with the Humanitarian Assistance & Disaster Response sector, being an industry signatory to the UN Crisis Connectivity Charter. Riaz Lamak, Lead, Capacity Building & HADR, GVF, will moderate. Satellite has a well-recognised critical role in reporting on disaster assistance and appeals for funding but is also mission-critical in organising and delivering humanitarian aid and resources into the field. The topics to be engaged here are: satellite industry engagement with HADR – international agencies, governments/militaries, and NGOs; the first 48-hours – supporting logistics, providing coordination of relief efforts; recovery and rebuilding; satellite communications when terrestrial networks fail; from 'satphone' to broadband – requirements in the field; and, from satcoms to EO – expanding applications for HADR.

The final two sessions of the Summit deal with extensive subjects, essentially entire conference subjects in themselves: The Satellite Integral Factor: Cloud; 5G and Robust Connections: Cyber; Interference; Orbital Debris.

Satellite is becoming as integral to the Cloud as it is acknowledged as being integral to roll-out of the next generation mobile standard – 5G. Recognition of the opportunities in partnering with the Cloud is only now working through. Leveraging reduction of CAPEX, reduced OPEX, rapid scalability, ease of development and ubiquitous accessibility is bringing evolutionary change to the satellite value chain, encompassing data volumes and analytics products arising out of satellite communications network operations and generated by NewSpace EO and IoT.

Satellite users depend on reliable and robust connectivity characteristic of today's platforms, but there are potential vulnerabilities. Three of these will be explored in Dubai.

Cyber Security is a not specific to satellite but concerns the entire IP-enabled global ICT infrastructure. The European Space Agency (ESA) is calling for proposed solutions to determine viability of satellite-based services in support of cyber security and to assess technical feasibility and commercial viability for vertical sector users of satellite. Potential solutions will be enabled by space to mitigate security risks and enhance cyber resistance and the resilience of existing infrastructures, services and operations, contributing to enhanced end-to-end security. So, a key question is, "Is the satellite sector doing enough in the cyber security environment?"

Interference is a vulnerability the satellite industry successfully addresses through technology advance and human capacity-building, (i.e., GVF training), and this topic will question what still needs to be done and will be addressed through the terminal type approvals work of the GVF Mutual Recognition Arrangement Working Group (MRA-WG) and GVF collaboration with ESA and the ITU.

Orbital Debris is a prominent issue. The discussion here will encompass: sustainable space utilisation supporting development on Earth; tools to support collaborative space situational awareness and surveillance; risk models, regulatory regimes, and international coordination and guidance for space actors; space-based applications and the NewSpace age of innovative LEO business; scale and operation of the mega-constellations – orbital debris prevention and operator responsibility; and, maintaining a space sustainability-based future.

Ericsson: 2019 was the year of 5G in the Middle East and Africa region

Ericsson achieves commercial 5G agreements with seven mobile operators in the Middle East and Africa region during 2019. Chafic Traboulsi, head of networks, Ericsson Middle East and Africa reflects on this milestone

As the Middle East and Africa region races towards commercial 5G services, Ericsson achieved significant milestones with leading service providers on the road to making 5G a reality.

During 2019, Ericsson Middle East and Africa announced seven commercial 5G agreements with operators in different countries: Etisalat UAE, Ooredoo Qatar, STC Saudi Arabia, Zain Bahrain, Batelco Bahrain, MTN South Africa and Mobily.

On a global level, to date, Ericsson signed 78 commercial 5G agreements or contracts with unique operators, of which 24 are live networks with Middle East and Africa region contributing to around 29%.

In the MEA region, Ericsson has already cemented its 5G leadership position during 2019 by implementing the 5G networks and by improving our customers' network capabilities in both 4G and 5G.

With the advent of high speed and low latency dependent applications like Virtual Reality, Augmented Reality as well as industrial automation; Ericsson is among first to market with solutions to enable today's networks to evolve smoothly to support them via next generation "5G" networks.

The benefits of 5G's high speeds, low latency, and superior reliability will make a real difference. Preparing for these 5G opportunities is a must for service providers. In fact, service providers in the MENA region can target a potential revenue opportunity from USD 15.18 billion to USD 45.91 billion by 2030 provided they adapt their business model to become service enablers and creators.

With consumer and personal communication-centric commercial 5G networks already live, the next wave of 5G expansion will allow businesses to digitalize with more mobility, flexibility, reliability, and security – taking IoT and industrial applications to never-before-seen levels.

Industry digitalization opens new opportunities for service providers to build and extend their businesses beyond connectivity. The 5G-IoT landscape offers enormous potential but is complex to navigate and demands a comprehensive understanding of the different driving forces and barriers for different industries in focus. The probability to be successful in capturing parts of this potential is higher in the next 5-7 years when roles and market shares are established rather than later. First mover's advantage is clear. Addressing these opportunities could enable service providers to unlock additional revenue streams of up to 35 percent, on top of the current scope of business by 2030.

Ericsson's standalone 5G solutions ensures super-fast response times as well as the future-readiness of the network architecture, opening up new service-creation opportunities. The new solutions extend network capacity and capability, enabling smooth network evolution, and facilitating new consumer and industry use cases.

In addition, existing Ericsson Radio System portfolio is ready to enable 5G New Radio capability through remote software installation. This applies to more than 150 different radio variants in more than 190 networks around the world.

Ericsson is also evolving its cloud solution with an offering optimized for edge computing to meet user demand. This will enable service providers to offer new consumer and enterprise 5G services such as augmented reality and content distribution at low cost, low latency, and high accuracy.

As we turn towards 2020, we can say for certain that 5G will take off. ■

International travel, home mobile ?

Shanks Kulam, co-founder of x-Mobility explains how you can be abroad and still connected to home

We've been working with African businesses and operators for a while now – both in and out of Africa and we've noticed a number of changes. Over the last few years, as we've been doing more and more business with African operators and brands, we can see one major truth: Africa is growing.

Not in terms of population, or even in terms of GDP (although it's true both are growing), but in terms of confidence and vibrancy. There is a feeling in the air that is exciting to witness and to be part of.

Over the last few years the businesses that we have been talking to – and that includes telecoms businesses and brands looking to offer a telecoms-based solution – have become more outward facing, more sure of their place in the world and more aggressive when doing business outside of Africa.

No longer do the words 'Africa' and 'business' mean inwards investing opportunities. They now signify a desire and conviction for African companies to seek out opportunities outside of Africa.

Mobile Drives Growth

Once a business decides to grow, expand and open up new horizons it is often the mobile phone and mobility itself that helps to drive that growth. Mobility gives us the power to grow, while the mobile phone keeps us connected to home.

When you're abroad, whether travelling for business or as a tourist, almost everyone misses home. We've all got back to the hotel from a busy day out – whether sight-seeing or holding meetings – and wanted to speak to our partner, phone the kids, or just check up on social media to see what our friends have been up to that day. No matter how brave, how international we are, we all want to be connected and to maintain that relationship with home.

Yet at the same time, we also want to be part of country and community that we are now in. Whether we plan to live there, do business there, or are just passing through, being part of the new community helps us to feel like we belong.

It is the mobile phone that can help us achieve both of these contradictory desires.

African operators now need to look to how they can both help their subscribers reach their goals and ambitions outside of Africa, while also staying rooted in Africa.

Meeting That Opportunity

We know of one pan African brand that has seen the potential for this and has reacted accordingly. One of the major mobile network operators in Africa is working to establish a new business model for themselves and new options for their subscribers when they are travelling or working abroad.

This operator has reacted to the trends for more people to be setting off from Africa as global travellers – whether for pleasure or for business – and has created a solution that allows their subscribers to be connected locally at their destination and at home at the same time. These travellers can now take their African brand, their home network, abroad with them across the globe.

How the new service will work is that the traveller will download a branded app from their home mobile network. This app will allow them to get a local number for their destination – whether that is the US, France, the UK or many other global destinations – while at the same time keep their regular home number.

One device, multiple numbers, multiple geographies, all with cheaper calling.

Once they have got the app on their phone the travellers can leave Africa and explore or do business abroad knowing they are connected.

A local number means that they can more easily interact with the people they meet, from ordering a take away, to setting up a business meeting. And because any calls and messages are made over IP – using data, rather than a cellular network – they are much cheaper than traditional calls.

While being connected to home, with their regular home number still in use means they can make calls and messages to home. The beauty of this new service is that the app can make calls – again using data, rather than roaming on the cellular network – from the home number too, dramatically reducing the price of those calls home.

In this way the operator not only increases their revenues, but crucially, maintains a relationship with subscribers while they are abroad.

For another business, it is about targeting the Africans that have moved abroad more permanently. By establishing a brand that appeals to their 'African-ness' they can build a network of diaspora subscribers that can help them target friends and family back home. This brand is looking to come back into Africa, so confident is it of the growth and potential that Africa is exuding.

Being at Home, Away

Both of these opportunities are based on the desire to provide people with options that allow them to connect and feel like they belong at home, while they are away.

Local numbers from the new destination, whether that be the US, France, the UK, or any other country, can make the traveller feel at home and can make their life easier. This is important whether they are travelling for business, just spending time sight seeing, or are planning to be more permanently resident there.

We've all seen calls come into our mobile that are from abroad and decided not to answer it. That could have been a global traveller that we have just met calling from the hotel around the corner – but calling from their 'home' international number. That missed call could have been a missed opportunity for both of us and one that we would have accepted had they called us from a number we felt more comfortable answering, even if we didn't recognise the number.

Whether it is booking a table in a restaurant, ordering a cab to take you to a meeting, or catching up with people you have just met – having a local mobile number and therefore being seen as a local makes life so much easier.

Yet for many global travellers, missing home is a big part of being away. With mobile solutions like the one mentioned above, no longer do they have to worry about the cost of phoning home. Even while they are away, they can be 'present' at home too.

Proudly African

The union of these elements: the increased confidence, the availability of the technology, and the foresight and vision of these African businesses to spot this opportunity, will create a virtuous circle.

Travelling the globe from Africa will no longer mean having to completely leave Africa. Brands from home can travel with you – and a mobile brand is one of the brands people use and engage with the most. No longer do travellers have to forego their preferred brand to fit in Europe (or wherever they are travelling to). Now they can proudly use, display and promote their preferred African brands, which will lead to further take up, increased use and heightened pride. ■

x-Mobility works with brands and MNOs to create traditional MVNOs or AppVNOs – a SIM-less mobile experience provided through a telco app which offers multiple mobile numbers on their existing device.

Chad cuts telecom excise to make internet more affordable

The Chadian government's decision to remove the 18% excise incurred by telecom operators in the country has resulted in reduced internet costs.

Chad's Finance Act 2020 prompted authorities, via the Agency for the Regulation of Electronic Communications and Posts (ARCEP), to lobby telecom firms to reduce their rates for internet services. The companies responded favourably and Airtel reduced the cost of 200Mb from FCFA500 (the price since Jan 2018) to FCFA400.

It also lowered the costs of its 4Gb and 7Gb data plans to FCFA4000 and FCFA10,000 respectively, from FCFA5,000 and FCFA12,000.

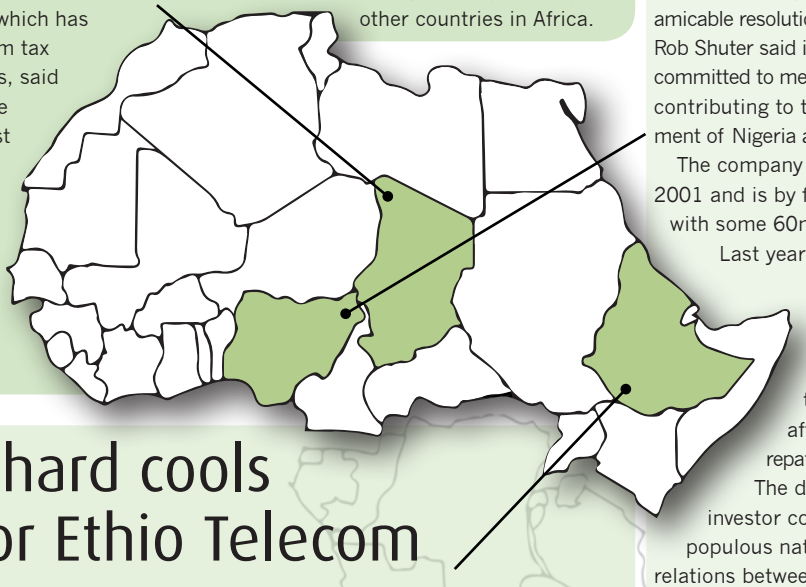
Tigo's 50Mb data plan now costs FCFA150 instead of FCFA200 - and it lowered the cost of its 200Mb plan by FCFA100, while the 500Mb plan dropped from FCFA1000 to FCFA845.

The GSM Association (GSMA), which has been a strong advocate for telecom tax reform in several African countries, said the removal of excise duty and the drop in internet prices could boost the Chadian market, which continues to be impacted by several challenges.

In its report on digital inclusion and mobile sector taxation in Chad, the trade body that represents the interests of mobile network operators worldwide said over two thirds of Chadians remain unconnected to mobile services, while mobile penetration lags behind many other African countries. It added that mobile broadband networks are still in their infancy, with 3G penetration only around 2%, and internet usage is the lowest among countries with comparable GDP per capita.

"Affordability of mobile services is a key barrier to increasing penetration and usage. High costs may be a particular issue for the poorest in Chad's society, for whom costs correspond to 87% of monthly income, not including the cost of handset purchase," the GSMA said.

While internet subscribers in Chad have welcomed the reductions, the cost of going online there remains comparatively high against other countries in Africa.



MTN Nigeria and attorney general end US$2bn spat

MTN Nigeria said the country's attorney general had withdrawn a demand for US$2bn in back taxes in the latest step towards resolving its legal woes with the Nigerian authorities.

The South African telecom firm has already battled back a string of financial claims from Nigeria and last May floated its shares on the stock exchange in the west African country.

The company said that the attorney general's office had "withdrawn its letter of demand" for the back taxes and referred the matter to the inland revenue and customs services to be resolved.

"We appreciate this decision of the Attorney General which paves the way to an orderly and amicable resolution of this matter," MTN Group CEO Rob Shuter said in a statement. "MTN remains fully committed to meeting our fiscal responsibilities and contributing to the social and economic development of Nigeria and all regions where we operate."

The company began its operation in Nigeria in 2001 and is by far the country's largest carrier with some 60m subscribers.

Last year it settled a US$1.5bn fine levelled by the authorities for failing to disconnect unregistered subscribers.

In 2018 the company agreed to pay a separate US$53m fine after being accused of illegally repatriating US$8.13bn to South Africa.

The disputes with MTN have rattled investor confidence in Africa's most populous nation and tarnished diplomatic relations between continental powerhouses Nigeria and South Africa.

Orange's Richard cools ambitions for Ethio Telecom

Orange chairman and chief executive officer (CEO) Stéphane Richard urged caution about Ethiopia's ability to rapidly privatise its telecom industry.

Speaking at the French operator's Engage 2025 presentation, he stated that while his company is interested in the Horn of Africa nation's market a potential equity investment in Ethio Telecom, Richard said the prospect of acquiring one of the two new licences – to be granted in mid-March – more appealing than that of purchasing a minority stake in the country's sole operator.

"I'm wary of those nudging me towards Ethio Telecom," he said at the presentation, December 4.

Richard added that the country's political situation and market characteristics, in addition to Ethio Telecom's own specificities, is an extra layer of complexity to the process.

"It's a monopolistic incumbent operator in a former communist country," he continued. "When it comes to performance, I don't think it's up there with the world's top players. We're aware of the country's privatisation plans but we don't have in-depth knowledge of the terms."

Richard also said Orange has opened an office in the capital Addis Ababa to foster communication.

Currently with nearly 100 million residents, a low mobile phone penetration rate and an entire network to be built from the ground up, Richard said Ethiopia is an "exciting" prospect.

By 2025, Ethiopia is expected to grow 11% and generate 18 million new mobile subscribers, according to a recent report by telecom trade body GSMA (Global System for Mobile Communications).

Richard indicated that Ethiopia's plans could also give Orange a valid reason to consider launching an IPO of its OMEA division.

However, a "clear" strategic growth project for Africa will need to be defined beforehand.

"We don't want the IPO to be interpreted as Orange making a move to pull out of Africa, as was the case with Bharti Airtel and Telefónica," he said. "This means that we'll also base our IPO decision on the markets and OMEA's valuation."

Orange is one of the largest operators in Africa, with a presence in 18 countries via its Orange Middle East and Africa (OMEA) entity.

One in, one out for MTN Group

MTN Group has named Gordian Kyomukama as the new chief executive officer (CEO) of MTN South Sudan, effective January 21.

Lily Zondo, who has been acting CEO over the past few months, will resume her role as chief financial officer (CFO) with immediate effect.

Kyomukama, who has nearly 30 years of telecom experience, mostly with MTN, started his career at MTN Uganda as part of the pioneer team. He has also undertaken secondment opportunities in Rwanda, Cameroon and Côte d'Ivoire and served as MTN Liberia chief technology and information officer (CTIO).

Meanwhile, MTN Cameroon CEO Hendrik Kasteel has announced plans to step down at the end of March, citing personal reasons.

Orange targets more business under Engage 2025 plan

Orange has strengthened its presence in Africa with the inauguration of the Orange Middle East and Africa operational head office in Morocco.

Located in Casablanca Finance City Tower (CFC), it is equipped with cutting edge technology including video conference and telepresence rooms, as well as a social hub that supervises and monitors the digital activity of Orange and the industry in general in Africa and the Middle East in real-time.

Alioune Ndiaye, the head of the unit, has also made several appointments of senior managers from countries in Africa and the Middle East.

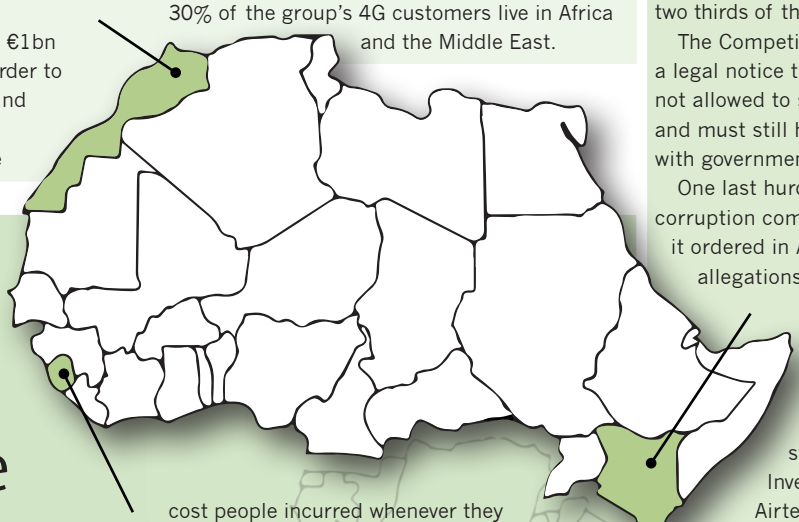
Orange Group said its activities contribute significantly to GDP across its footprint: 8% in Cameroon, 8.2% in Guinea, 11% in Côte d'Ivoire and 11.2% in Senegal.

Every year, the operator invests €1bn in Africa and the Middle East in order to further improve the connectivity and performance of its networks.

The company plans to reinforce its multi-services strategy so that diversified services represent 20% of the business by the end of the Engage 2025 plan period. Orange Money will achieve revenue of about €900m. Orange Money is available in 17 countries and has circa 45 million customers.

Orange had 125 million customers as of October 30th, 2019 in 18 countries in Africa and the Middle East. It generated sales revenue of €5.2 billion in 2018 from the Africa and the Middle East region.

To put Orange's presence in the continent into context, one African in 10 is a customer of Orange Middle East and Africa and one African in 30 is a customer for Orange Middle East and Africa's banking and financial services. Almost 30% of the group's 4G customers live in Africa and the Middle East.



ECOWAS roaming arrives in Sierra Leone

Sierra Leone has joined seven other countries in west Africa to cut network tariffs on roaming calls.

This means subscribers who travel from the country to other nations in the region can make calls at local rates through their own network.

For Sierra Leoneans, the cost of roaming calls has now come down in Benin, Côte d'Ivoire, Guinea, Mali, Burkina Faso, Senegal and Togo.

Sierra Leone's telecom regulatory body, National Telecommunication Commission (NATCOM), said the move will remove the extra cost people incurred whenever they travelled to neighbouring countries.

Prior to the introduction of free roaming, Sierra Leoneans making or receiving calls in Guinea previously paid a total roaming charge of Le19,672 from Orange Sierra Leone to Orange Guinea. The caller was charged Le 2,803 per minute, while the receiver had to pay Le17,589 for the same duration.

However, the introduction of the new system will see the caller pay far less at Le650 per minute, while the receiver will not be charged.

Orange Liberia partners with United Bank for Africa

Orange Liberia and the United Bank for Africa Liberia have joined forces to launch the Mobile Money Push and Pull Service for customers of both businesses.

The service is also known as "Bank to Wallet" and will provide an alternative channel to deposit or withdraw money from a UBA account to the customer's Orange Money Wallet and vice versa. Customers can also check their bank account balance and their last five bank transactions. They first need to register on Orange Money using star 144 hash and then proceed to any UBA Business Office in the west African nation to link their UBA Account and Orange Money Wallet account.

In order to promote the service, for the first three months it will be free of charge for all customers with a minimum fee of LRD 0.50 per transaction after that period.

Airtel Kenya and Telkom Kenya merger approved

The planned merger between Airtel Kenya and Telkom Kenya has been approved by the country's competition authority – a deal that could challenge market leader Safaricom's dominance of the east African nation's telecom country's telecoms industry.

India's Bharti Airtel said in February its Airtel Networks Kenya unit had agreed to buy Telkom Kenya, the East African nation's smallest operator in which the state still has a 40% shareholding after a majority stake was sold in 2007.

The combined entity would create stronger competition for Safaricom, which now controls about two thirds of the market in terms of subscribers.

The Competition Authority of Kenya said in a legal notice that the newly merged entity was not allowed to sell itself for the next five years, and must still honour any existing contracts with government bodies.

One last hurdle to the merger is the anti-corruption commission lifting a suspension it ordered in August while it investigated allegations about the misappropriation of public funds at Telkom.

France's Orange bought a majority share in Telkom Kenya when it was privatised in 2007 but then sold its stake to London-based Helios Investment in 2015.

Airtel Kenya has previously said the merger would not involve Telkom Kenya's extensive real estate holdings and some government contracts for unspecified services.

Expresso offers channel for airtime and data distribution

Senegalese operator Expresso has launched an online portal to enable customers to buy and add airtime and data bundles to their prepaid account. Developed with and available on instantaneous cross-border airtime purchase firm Prepay Nation's platform, the portal is available to subscribers in Senegal and globally, serving roaming customers and the diaspora. This online top-up service launched by Expresso will generate additional revenue for the operator and save subscribers money, because they will not have to pay any extra processing fees.

Angola passes 14m mobile users

Angola currently has over 14 million users of mobile telephony and approximately seven million subscribers of the internet access service, according to the country's regulator.

The figures were provided by its president Leonel Augusto during a meeting between the Instituto Angolano das Communicacoes (Inacom) and operators of electronic communications and postal services in the country, which took place in Luanda, December.

"We already have a high rate of coverage, which is not the one we want yet and we have to continue to improve it with new investments," said Augusto.

He also said that the applications submitted for the international public tender for the fourth telecommunications operator in Angola would be disclosed January 22nd, 2020 by the Ministry of Telecommunications and Information Technologies.

The president of Inacom added that from the first quarter of 2020 interested parties may request the respective licenses for multi-services, through SEPE, the Angolan government's portal for electronic public services.

This document allows the operator to provide a variety of services including fixed and mobile telephony, Internet service, pay-TV and cable channels.

Meanwhile, Angolan company Fonecom has joined forces with China's Xiaomi to launch, in 2020, the assembly of phones in Angola.

The news was announced by businessman Horácio Moniz, who was speaking at the inauguration of the first official Xiaomi store for smartphones and other electronic products. Moniz said the two companies will invest approximately US$1.5m to build a logistics centre and other facilities needed to assemble 100,000 phones.

Three models of telephones are due to be assembled for the Angolan market, of a low, medium and high range.

Excaf Telecom gets fine reduced

The Court of Appeal in Senegal has reduced the sum that Excaf Telecom was ordered to pay Côte Ouest Audiovisuel, a distributor of audiovisual rights in Africa, for having used the latter's images without consent.

Instead of the FCFA600m that Excaf had to pay after the first decision, the company must now fork out FCFA20m in damages.

This decision was taken after Excaf presented mitigating circumstances that weighed in its favour.

In November 2019, the Dakar Court of Appeal reversed the decision requiring Excaf to pay FCFA650m to broadcasters Canal + and Sport TV Portugal. In the end, these two channels were ordered to pay FCFA10m to Excaf for an "abusive and vexatious procedure".

Angola's Isabel dos Santos sees Unitel stake frozen

An Angolan court has placed a freeze on assets held by Isabel dos Santos, Africa's richest woman, including stake in wireless operator Unitel SA.

The court order also applies to dos Santos's husband, Sindika Dokolo and Mario da Silva. Angola's attorney general sought the order, saying the three had engaged in transactions with state-owned companies that led to Angola's government incurring losses of $1.14bn, according to the reports.

A 25% stake owner of Unitel through her company Vidatel, dos Santos said in an emailed statement that the judgement contains statements that are completely untrue and that she will use all available instruments of Angolan and international law to fight the order.

Dos Santos, the daughter of Jose Eduardo dos Santos who served as Angola's president from 1979 to 2017, wrote on Twitter a "message of tranquillity and confidence to my teams," without referring directly to the court action. "The road is long, the truth will prevail," she said.

In October 2019, dos Santos said she did nothing wrong when she was chairwoman of state-owned oil company Sonangol and called a probe into the transfer of millions of dollars from the Luanda-based firm "political vengeance."

Meanwhile, Sonangol has become a majority shareholder in Unitel, a move that could threaten dos Santos' position as head of the telecom firm. Sonangol, which previously held 25% of Unitel, said it had acquired another 25% from Portuguese telecoms company PT Ventures in late January

MTN Zambia promotes from within

MTN Zambia has made general manager: enterprise business Komba Malukutila its new chief financial technology officer.

The company described Malukutila as "a dynamic telecommunication professional with over 12 years' work experience within commercial and technology functional streams" and someone who has led various portfolios within MTN including product development, marketing and enterprise business.

"Malukutila brings a wealth of knowledge and experience to the new role gleaned over a 10-year career within the telecommunications industry with a track-record of driving business strategy for growth, as well as developing high-performing teams," MTN Zambia said in a statement.

Chief executive officer Bart Hofker added: "In the period that I have worked with Komba, he has shown strong customer focus, result driven and a lot of positive energy: he is a pleasure to work with. I would like to congratulate Komba on this appointment and I wish him all the success in this new role."

Telkom SA 'could shed 3,000 jobs'

South African telecom firm Telkom SA told unions it could cut up to 3,000 of more than 15,000 staff as it battles with declining performance in fixed voice and fixed data services.

Telkom, like other African operators in which the government holds a stake of about 40%, is trying to keep pace with a surge in demand for the internet and data with growing smart phone usage.

It is also struggling with organisational and operational inefficiencies linked to fixed voice and data services, which require more staff to install, maintain and market, it said in a letter to unions seen by newswire Reuters.

Telkom SA said it will consider voluntary severance and early retirement packages for employees affected by phase one of the job cut, which will affect employees at Openserve and the Consumer divisions from January to April.

Affected jobs include support employees, specialist, operational employees and supervisory and management levels in its wholesale division Openserve, the consumer unit as well as in its corporate centre.

Telkom SA, which runs the country's biggest fixed-line telecom network, is migrating customers to mobile voice and data as well as fibre, where it is a small player in a market dominated by MTN Group and Vodacom.

"The deterioration in the economic climate, increased operational, regulatory and competitive constraints, coupled with continuing rapid migration from fixed voice and data business have all had a major ongoing negative operational and financial impact on Telkom," it said. "For Telkom to survive the current and anticipated tough trading conditions, it is imperative to seek and implement measures which will drastically reduce costs, eliminate inefficiencies and improve operational and financial performance in the interest of securing its continued commercial viability and employment for the majority of the employees."

Telkom also said it wants a leaner structure in its Openserve and group IT division and a focused skill set in line with the new business demands of a mobile-focused business.

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Mara Group first to 'Made in Africa' smartphones

Rwanda's Mara Group two new smartphones have been described as the first "Made in Africa" models.

The Mara X and Mara Z will use Google's Android operating system and cost 175,750 Rwandan francs (RWF) (US$190) and RWF120,250 (US$130) respectively. Competing with Samsung, whose cheapest smartphone costs RWF50,000 (US$54) and non-branded phones at RWF35,000 (US$37), Mara Group CEO Ashish Thakkar says it was targeting customers willing to pay more for quality.

"This is the first smartphone manufacturer in Africa," Reuters quotes him as saying after visiting the company alongside Rwanda's president Paul Kagame.

He adds that companies assemble smartphones in Egypt, Ethiopia, Algeria and South Africa, but import the components. "We are actually the first who are doing manufacturing," he says. "We are making the motherboards, we are making the sub-boards during the entire process. There are over 1,000 pieces per phone."

The phones are an important step toward Rwanda's goal of becoming a new hub for the tech industry. *www.maraphones.com*

Sonim brings XP3 PTT flip phone to Verizon

The Sonim Technologies Sonim XP3 rugged flip phone has a dedicated push-to-talk button and is now available on the Verizon network.

The device is interoperable with field radios and smartphones, courtesy of Verizon's preloaded PTT+ application, which provides Verizon customers with push-to-talk capabilities.

"Flip phones are making a comeback among users opting for simple mobile communications," said Sonim chief executive officer (CEO), Bob Plaschke. "The addition of the XP3 gives Verizon business customers an affordable, ultra-rugged, reliable option that supports 4G calling, which has been a limitation for older flip phone models."

There's more – the XP3 is IP68-rated, meets the MIL-810G standard for ruggedness (including drop protection) and comes with a three-year warranty as standard. It also has a 100 dB+ speaker with noise cancellation and is supported by a range of industrial-grade accessories such as rugged headsets, RSMs, vehicle kits and multi-charging bays. *www.sonimtech.com*

New 'TV White Space' solution from Radwin drives broadband to remote communities

Radwin says its new disruptive TV White Space (TVWS) solution is ideal for providing broadband to remote communities. It utilises unused TV channels in the 470-698MHz band to connect unserved rural customers to the digital world.

Leveraging upon the Israeli firm's broadband wireless access technologies, the new TVWS solution operates in non-line-of-sight scenarios and penetrates trees and foliage over extensive distances. The new TVWS solution also complements Radwin's existing carrier-grade sub 6GHz portfolio and is supported by its OSS tools to address all operational aspects of the network lifecycle.

"There are entire populations across the globe that live in remote areas who have no connection to the internet," says Sharon Sher, Radwin's president and chief executive officer. "Fixed wireless is one way to deliver broadband, however, in many rural areas, there are obstacles to direct line-of-sight connectivity. With our newly-launched TVWS solution, service providers can connect unserved remote communities to the information age, help bridge the digital gap and generate new revenue streams. Sher reckons rural communities can significantly improve their lifestyle and boost productivity "by accessing an unlimited array of online broadband services from healthcare, education, government services to entertainment".

The solution will be available globally in Q1 2020. *www.radwin.com*

Receiver antenna that enables EV wireless charging

Spanish firm Premo has designed "highly reliable receiver coils" for EV wireless charger applications – an innovation backed by European and international patents.

The WC-RX-Series (compact secondary coils) consist of a flexible magnetic core combining Flex-Ferrite blocks with PBM (Soft-Polymer Bonding Magnetic) with a D-type coil. The receiver antenna, Premo claims, is able to handle from 3kW to 11kW of power but the firm is already working on a 22kW version.

This wireless power transfer (WPT) requires no physical contact between the vehicle and the charging station, therefore overcoming the inconvenience and hazards caused by traditional direct-conductive methods.

The challenge is to replace the conductive charging method by WPT technology while maintaining a comparable power level and efficiency. What's more the end game goal is to dynamically power the moving vehicles on the road, automated guided vehicles on a factory floor and/or autonomous robots and forklifts in a warehouse. This may lead to a significant size reduced battery pack and extended driving range at the same time thus addressing the main concerns of EV, namely, the high prices of batteries and range anxiety.

For the past three years, Premo has been investing in inductive components design applying both the 3DPower concept (for the magnetics involved in WPT) and the ALMA concept (for long-range antennae using flex-magnetic core).

Together with its research partners, the company developed a technology supporting Inductive Wireless Power Transfer in the range of 90kHz. The magnetic core technology developed for Premo's WC-Rx-Series (secondary coils) provides a high efficiency power transfer in excess of 95% thanks to a carefully crafted combination and optimization of the coil (Litz wire) with a flexible-core configuration that avoids air gaps and reduces heating areas. *www.grupopremo.com*

‘Cloud accessible networks in the palm of your hand’

EnGenius Networks says its eponymous SkyKey is aimed at those interested in speeding up the process of managing feature-rich access points and switches and who want to save time by managing wired and wireless networks from a single platform.

The multinational wireless networking company says that even though the device is smaller than a smartphone, it is powerful enough to act as an integrated computer equipped with built-in sophisticated network management software and powerful state-of-the-art hardware.

A built-in free ezMaster management software controls EnGenius access points or switches directly.

The company further claims the EnGenius SkyKey puts an end to the need of a dedicated server usually required for managing a fully on-premises wireless network. Equipped with user-friendly software, the mini-workstation powered by either PoE or a 12V adapter prevents IT professionals from spending hours going through a challenging installation or maintenance. All tasks are performed via a user-friendly web browser interface. The device comes with integrated sturdy magnet strips allowing IT professionals to attach it to any metal surface.

Key features and benefits include cloud and private network management, secure cloud access, plug and play installation, easy web-based management interface, plus network overview analytics.

“The new addition to the EnGenius family brings extra benefits and convenience to the users,” says Sherry Wei, regional general manager at EnGenius Networks Europe. “SkyKey is fully capable of bridging the gap between on-premises solution and the company’s recently released cloud solution. The SkyKey gives IT professionals multiple ways to adjust global settings, monitor and visualise networks, and access statistics information of any type of network – wireless or wired.” *www.engeniusnetworks.eu*

Infinet’s brand new Quanta 5

Infinet Wireless says its brand new 5GHZ point-to-point solution has a capacity of 450Mbps in just 40MHz. It also claims the Quanta 5 product has a processing power of 800,000 packets per second. Apparently, it provides the highest spectral efficiency available in today’s wireless marketplace, even when it’s tasked with operating in high interference environments.

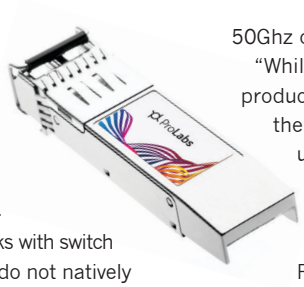
The firm also reckons it’s fully future proofed as it utilises the Octopus SDR platform that allows new PHY, MAC and upper layer features via a firmware upgrade even for the units operating in the field.

Infinet further claims its Quanta 5 can be deployed in a diverse range of applications, from backhauling for Wi-Fi and 4G/LTE base stations to CCTV and video-surveillance infrastructures. It can also provide internet access to remote locations. What’s more, Infinet takes pride in its “unique combination of high performance, affordability and ease of installation”. *www.infinetwireless.com*

ProLabs add to portfolio with new Clarity Auto-Tuneable DWDM Transceiver

ProLabs, the optical networking and connectivity solutions business, says its self-tuning ProLabs’ Clarity Auto-Tuneable DWDM Transceiver is designed to save service providers cost and time to deploy new services.

As the newest member of ProLabs’ solution portfolio, Clarity is a plug-and-play solution that is “appropriate” for any OEM switch platform that supports SFP+ transceivers. Service providers can plug Clarity into the host and passive mux – and the transceiver automatically locates the open channel, tunes and locks onto the transceiver at the other end. It apparently auto-discovers and self-tunes to individual DWDM wavelengths without manipulation by OEM platform or peripheral devices and it’s system independent – meaning it works with switch platforms that do not natively support tuneable transceivers. ProLabs says it also reduces the complexity of tuning to specific wavelengths in the field as well as reducing inventory for spare DWDM transceivers. What’s more, the company claims it provides up to 80KM reach with full industrial temperature performance and is available in 50Ghz or 100Ghz channel spacing.



“While the idea of tuning products is certainly not new, the industry is accustomed to using products that require software or a separate device to perform this functionality,” says Raymond Hagen, global product line manager, ProLabs. “With Clarity, we have eliminated the need for technicians to track fibres or carry extra equipment to program the wavelength of each module during their deployment, which leads to faster deployment and reduced costs. It’s a win-win.” *www.prolabs.com*

Look out for...

NGMN’s white paper on ‘air gap’

The Next Generation Mobile Networks (NGMN) Alliance has published its ‘Continuous Delivery in Telecommunication Network Environments’ white paper, which sets out concepts to tackle the ‘air gap’.

Mobile networks are becoming more software-centric and cloud-based, with greater use of network functions virtualisation (NFV) and software defined networking (SDN). At the same time as paving the way towards a more agile approach to service delivery and enabling greater network automation, mobile network operators’ teams are shifting from a traditional approach to a DevOps approach (which works to reduce the time it takes to deploy new software).

However, one barrier to this approach – identified in the NGMN white paper – is the ‘air gap’. That is the strict separation between live networks (production environments), test environments and development environments, which is required for security reasons. The air gap makes it harder to move software from one environment to another.

The white paper sets out a concept that addresses this problem, allowing network boundaries to be bridged while meeting strict security requirements. It was designed with close collaboration between security experts and their counterparts in the fields of continuous integration (CI) and continuous delivery automation. The concept takes advantage of cloud infrastructures and cloudified applications, but it is not limited to them and the authors claim that it also works well with classic data centres providing virtual machines or even physical network elements.

The concept also draws from findings gained in recent projects, including DevOps practices from major players such as Deutsche Telekom (DT) and SK Telecom (SKT) including feedback from more than 25 NGMN MNOs.

“This project has reinforced the importance of industry collaboration to expand and evolve telecommunications networks with a view to providing continuous deployment,” said Peter Meissner, CEO of NGMN. “Collaboration is key not just for NGMN but for the whole industry.

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Making 5G pay

Much is said about the potential for 5G and the doors it will open for new opportunities. However, the real challenge in Africa is going to be how to monetise this exciting new technology. Jon Howell and Smita Sarkar investigate

Africa will have to wait till 2022 to be introduced to the new generation of 5G cellular mobile technology, poised to offer reliable delivery of much higher data speeds than current data networks, a theoretical 20Gbps download and 10Gbps upload along with enhanced coverage. So does that mean that 5G will stay on the back burner for Africa?

"5G rollout in Africa will be much slower than Asia and Europe," says Kim Craven, managing director of Lifecycle Software. "There is less demand for high-speed, higher-cost bandwidth, more need for lower cost and accessible mobile services."

There will be pockets of opportunity for operators though. Affluent cities like Johannesburg will lead the way and, like in Europe, the replacement of fixed-line services with mobile broadband will be the way ahead for monetising 5G.

"Replacing copper and fibre infrastructure means cost effective and more reliable services that can be offered on a like for like basis, with unlimited data bundles being key to the uptake of the services," explains Craven. "This mobile broadband offering, along with VoLTE and other IP-based voice services, will be key in allowing the initial 5G rollouts to see ROI and fund growth into the interactive consumer base in later stages of its evolution."

Craven predicts that, other than affluent city areas, 5G handsets and 5G use will be minimal, with rather slow growth over the next 2-3 years. Significant growth in consumer use will only come when Asia and Europe have evolved their use of the technology and have found real world everyday use cases for the technology that Africa can adopt.

He isn't the only one who sees difficulties for African 5G. South African operator Cell C looks at 5G as an inevitability but they warn that unless the industry makes drastic changes to the traditional models of network rollout it's unlikely that it will make the impact that is hoped for. "The implementation of the nascent 5G technology has been hyped in the South African media, but the capital investment in LTE and LTE-Advanced (around R80bn over the last three years for industry) will be small in comparison to the investments needed to cover the same footprint with 5G technology," warns Cell C.

But other operators are much more positive about the technology's future. They feel that Africa with its increased mobile data usage, huge population, and a lack of fixed-line internet connectivity can prove to be a lucrative market for 5G and "this promise of high-speed connections will help operators leverage multiple untapped applications, especially in a market like Africa," according to Anil Krishna, head of African region at Comviva Technologies.

James Gray, director at Graystone Strategy, agrees. "If the 5G infrastructure is extended into rural areas, the super-fast broadband will offer

a real potential boost to communities to get access to high speed data via routers," he says. Although he warns that the big challenge with super-fast mobile data is the rate at which data can be consumed and costs can be run up, if users are not on large data bundles.

Perhaps consumers shouldn't be in the forefront of any operator's plans. Speeding up the ROI on their 5G rollouts will involve looking at what the technology can enable, for example enriched content services, enterprise applications, and IoT services. "Once 5G arrives, operators will be able to leverage their network and infrastructure to create new monetisation opportunities," says Clémentine Fournier, regional VP Africa at BICS.

According to Martin Morgan, VP marketing, Openet, one of the initial uses of 5G will be fixed wireless access (FWA). In countries where fixed line broadband penetration is low, the opportunity is to use 5G FWA to offer a real alternative to fixed-line broadband services. "There is also the option of leveraging 5G for remote health and education programmes and looking at partnerships with government agencies to use 5G FWA to deliver such services," he says. "But the question shouldn't be just about getting customers to pay. There are many innovative models such as partner-funded and ad-funded models that can be rolled out too."

Sami Saber, managing director, Middle East and North Africa, Syniverse, remarks that customers won't necessarily buy a new handset to get higher speed. Operators will need to develop use cases that fit the local market and address local consumer needs. "With the lack of fibre infrastructure in some countries, 5G has become a credible and fast alternative. Fixed-mobile broadband for many operators represents the shortest route to 5G monetisation, which can be enriched with services like Internet Protocol television (IPTV) and video on demand (VoD)," he says.

With 5G's core benefit over 4G being an increase in concurrent users from 4,000 to a 1,000,000 per km2, operators should think about targeting highly-concentrated populations where high-quality data access is limited. Mobiz CEO, Greg Chen, says: In reality, perhaps the best way to monetise 5G is to utilise the additional bandwidth offered to reduce the overall cost of data on 3G and 4G networks thus increasing data consumption."

There are other alternatives to selling directly to consumers too. "Instead of end-users paying telcos directly for connectivity, operators in a 5G world will be able to generate revenues by charging the companies that are providing 5G-reliant services to their customers. This business-to-business-to-X (B2B2X) model can vary as X can either be a consumer or a business, leading to many different use cases. And by identifying and tapping into these opportunities, operators have the chance to ensure that they get a return on their 5G investments," says Fournier.

Business customers will be a critical part of the monetisation journey. Just as for consumers, 5G services need to be based on use cases designed specifically to address business problems, unlock new services, and enable new market offerings. "There have been a number of reports and studies from different industry experts about the expected explosion of IoT devices in the next decade," says Saber. "IoT remains a key driver of 5G, and, with ultra-low latency and speed, the potential is immense."

Morgan also thinks operators need to look at selling applications beyond connectivity to businesses. "We're already seeing the emergence of 5G powered smart factories in Asia and Europe," he says. "But to do this operators need to look beyond the confines of being a traditional telecoms company. Businesses will pay a premium for guaranteed quality of service for 5G, this could be for applications such as mission critical IoT and production lines in factories."

Fournier says the number of IoT connections is booming worldwide. According to the GSMA, between 2018 and 2025, the number of global IoT connections will triple to 25 billion, while global IoT revenue will quadruple to USD1.1 trillion. "In Africa, a continent that hosts over half the global population growth, there are already a number of practical IoT use cases in verticals such as agriculture: for example, wireless sensors for tracking animals, and measuring crop growth and soil moisture. Other examples include mobile money, and mhealth," she says.

Anil Krishna, head of African region, Comviva Technologies

"5G will bring a new level of performance and new characteristics to telecom networks, enabling new services, new ecosystems and new revenue streams"

As the connectivity to support the IoT becomes increasingly commoditised, the onus will be on operators to expand their role in the value chain. From providing the essential tools and capabilities for partners to build IoT solutions, to becoming the end-to-end IoT solution providers, the opportunity is there for operators to seize, she feels.

However, Craven has a note of caution. Although business take up of 5G services will be critical to the speed and commercial success of all 5G rollouts across Africa, he feels that existing IoT applications do not require 5G and it will only be when applications are developed specifically for 5G that IoT will drive significant commercial uptake.

Africa is a vast and diverse market. "South Africa and some north African countries, for example, are emerging markets, while others are considered 'frontier markets'," says Fournier. "In less developed countries there may be challenges, but these regions also hold opportunities for developing connectivity, use cases which are not possible elsewhere. In fact, some countries in Africa are arguably now leading the way in some markets, such as mobile money."

Operators shouldn't be discouraged though. "Despite the low ARPU across Africa (an average revenue per mobile user of between USD5-10), we have seen the emergence of new technologies such as 4G – albeit at a different speed to other continents," she says.

Craven thinks this is the critical point, that initially 5G has to replace services that people are already paying for in a commercial manner. "This means not only pricing 5G in line with existing services but significantly increasing broadband bundles to ensure it can be used without a large usage penalty," he suggests.

Ultimately, there could be technical limitations that will exclude those who are near the breadline. "Due to the increase in frequency adopted by 5G, its coverage per node will be significantly lower. Therefore many more nodes are needed to cover the same distance that 4G

Craven predicts that, other than affluent city areas, 5G handsets and 5G use will be minimal, with rather slow growth over the next 2-3 years

currently covers," explains Chen. "This would mean that only densely populated areas urban areas would get to utilise this."

Morgan thinks other business models might allow prices to be brought down. "5G will see many new partnerships as companies look to use 5G as a delivery channel for their services. It will be in the interests of these companies to have a large base that can use their services, so we will see such partner companies subsidising, or paying for, 5G access for some sections of the population," he predicts.

He points to Peru and how Telefonica is using innovative approaches to overcome the high cost of connectivity and the relatively low incomes of consumers. "Telefonica is partnering with Facebook and national banks as part of their Internet Para Todos (Internet for All) scheme to deploy internet connectivity. The result is that they will have connected half a million people in only one year in Peru with a goal of connecting the entire population," says Morgan.

With IoT maybe a long-term goal and consumers being slow to adopt, are businesses in the position to pay for 5G services?

"The simple answer is yes," says Saber. "Businesses have different priorities, such as revenue, customer experience, and cost. So a business will sign up to 5G if that can help improve their businesses in a high-priority area, for example. It just needs to be cost justified."

Krishna is of the opinion that in the context of Africa, "select use cases certainly have the potential, particularly in the agriculture, health, and manufacturing segments. These businesses may not be averse to paying, keeping in mind the potential to generate return on investment."

Operators have to look at the ROI for 5G, and it's the same for those businesses who are considering purchasing 5G services. "If the pricing is linked to the value that the service or application over 5G delivers, and if it can demonstrate operational efficiencies, reduced wastage or more efficient use of manpower, then there is a business case to be made," says Gray.

The business user marketplace is ready to pay for this believes Morgan. "There was a recent study by CapGemini of 800 industrial companies that showed that 79 per cent of industrial companies would expect to pay a premium for the guaranteed Quality of Service that 5G delivered, and 78 per cent said they'd pay a premium of enhanced speed and reliability, and 77 per cent willing to pay extra for enhanced security. There are numerous 5G features that enterprises will be willing to pay extra for," he says.

Greg Chen, CEO, Mobiz

According to the GSMA, between 2018 and 2025, the number of global IoT connections will triple to 25 billion, while global IoT revenue will quadruple to USD1.1 trillion

Fournier is keen to point out that despite the vastness of the African continent, and the remote nature of some towns and social groups, mobile and digital communications have been able to connect the previously unconnected. She is confident that 5G will help revolutionise several industries, including utilities, banking, health, transport and farming.

"For example, in some regions of Africa there is only one doctor for tens-of-thousands of people, they can now connect patients remotely to healthcare professionals, without having to travel long distances, and check medicine stocks in neighbouring towns. And by using smart agriculture technology, farmers across Africa have improved their control over the process of growing and harvesting crops, and rearing livestock," she says.

For operators, a new generation of telecoms technology throws up all sorts of issues. "Not all operators are ready for 5G," warns Morgan. "Some will be hindered by legacy systems, such as billing systems that were designed to bill voice calls and SMS. The good news is that there are new options to implement Digital and 5G BSS as an adjunct to legacy kit, or even on a new greenfield site for new digital brands."

As part of its product portfolio, Syniverse offers data clearing which validates and transfers billing data, used for example when operators need to charge for roaming. So Saber is well placed to comment on how ready operators are, "to monetise 5G-era services, a supplier must be able to accurately charge for its product in an ultra-fast, low-cost way. Blockchain will ultimately address this challenge. This technology, among other things, may eventually eliminate a large portion of the current process for revenue assurance."

"However, operators are not ready for this quick charging, and it will require rapid infrastructure-level technology to deliver it. The good news is that solutions are now being tested that will allow this to come to fruition soon," he says.

Fournier believes that there is huge potential for 5G across Africa, but there are significant challenges for operators to overcome. "First and foremost, is cost. To balance the level of investment and capitalise on the IoT opportunity, operators need robust platforms for customer management and billing. Opting for a cloud-based platform will minimise technical effort and upfront costs, making them more accessible to a broader market," she says.

To leverage the power of 5G technologies, operators need to rethink their role and what value to deliver, and what business models to use. "5G will bring a new level of performance and new characteristics to telecom networks, enabling new services, new ecosystems and new revenue streams," says Krishna. "Given that the use cases for enterprises will add another dimension in the form of newer revenue models and streams, the billing system will also need to accommodate such enterprise billing scenarios, in addition to the traditional end-user billing models."

There could be other challenges to take on. For example, suggests Gray, "will operators be willing to collaborate to reduce costs by site and spectrum sharing?"

Perhaps it's best to leave the last word for an actual operator. Cell C believes that at a basic level operators are ready. "Most operators will have prepared their physical infrastructure and software solutions. But whether they are ready to invest so heavily remains to be seen."

It certainly appears that 5G has a lot to offer, as long as telecoms firms can afford to make the leap to the next generation and find new use cases to complement the more traditional business market customers. ■

> "In reality, perhaps the best way to monetise 5G is to utilise the additional bandwidth offered to reduce the overall cost of data on 3G and 4G networks"

Helping hospitals bring quality care to their patients

Netcare's new connectivity network enables the delivery of next-generation services to hospitals across Kenya

When Netcare embarked on its journey to develop the next generation of hospitals, Internet Solutions was approached as the group's partner of choice to help make this vision a reality.

Its security solution to Netcare connected its private connectivity network to the public Wi-Fi network, enabling Netcare to offer wireless services to its employees across the country, and to connect wirelessly enabled equipment in the hospitals.

As one of the leading players in the South African healthcare industry, Netcare operates an extensive network of private and semi-private hospitals across the country. Quality care and professional excellence are two of its core values, which is why the company had been making large investments in providing next-generation services – including investments in technology.

Secure wireless infrastructure needed to support the next-generation vision

To help realise its vision for advanced healthcare services powered by innovative technology solutions, Netcare needed a wireless infrastructure that could be owned and controlled centrally, which at the time meant securely connecting two separate networks in each hospital – the hospital's local area network (LAN) and the Wi-Fi hotspot.

The infrastructure also needed to have high levels of security to protect extremely sensitive personal information, and it had to be easy for administrators and medical professionals to use.

Without a budget for this particular technology project, Netcare had to look at ways to use its existing infrastructure and investments in order to meet business demands.

New architecture uses existing infrastructure to deliver extensive connectivity

By using some of Netcare's existing infrastructure, Internet Solutions developed a firewall and Wi-Fi hotspot architecture that could deliver connectivity to all Netcare employees who were authorised to access the service.

A Fortinet firewall was installed at each hospital location to securely link the two networks, so employees could log in from anywhere using a single sign-on, whether they were at their desks or on the move in the building.

Internet Solutions proposed a fully managed service, providing full support for all firewalls, which would be managed centrally.

A better experience for staff, patients and visitors

By being able to connect to applications from anywhere in the hospital, Netcare staff are able to deliver a more efficient service to their patients. In addition, visitors to the hospital now have access to public AlwaysOn Wi-Fi services, all as part of the same solution.

Architecture that supports further technology investments

Netcare is also in the perfect position to continue investing in next-generation solutions that will improve the quality of care it can offer patients. The Internet Solutions architecture enables Netcare to take advantage of innovative cloud technologies without requiring additional fibre infrastructure.

Netcare's new connectivity network enables the delivery of next-generation services to hospitals across the country

Better information sharing is a key way to improve productivity and efficiencies and Wi-Fi can be used to stream data from connected medical equipment direct to mobile devices or to work stations. This enables healthcare workers to access real-time patient information from any location, removing the need for physical patient files and improving the accuracy and level of information available about a patient's wellbeing.

Using Wi-Fi to push and receive data from at home technology or on-site critical machines, ultimately enables healthcare organisations to improve the information sharing between man and machine – streamlining hospital processes and alleviating staff workloads, while improving patient care.

By connecting equipment over Wi-Fi, its location can also be monitored while asset tags on non-connected equipment, such as wheelchairs and beds, can extend this capability even further. Leveraging Wi-Fi to track expensive assets helps healthcare organisations to reduce equipment losses and their associated costs, plus ensure that the correct equipment is in the correct location.

"Simplicity, reliability and next-generation. These are the things the solution has enabled for us." ■

"Simplicity, reliability and next-generation. These are the things the solution has enabled for us." – Netcare

Better information sharing is a key way to improve productivity and efficiencies and Wi-Fi can be used to stream data from connected medical equipment direct to mobile devices or to work stations

Making remote healthcare a reality

Medical equipment and indeed patient services continue to evolve and we are becoming better connected in the in the process. Key to this is the implementation of a flexible networking solution which can handle the expanding connected applications within healthcare.

These advances are important in every county in the world, but none more than the that need it most.

Indeed, Wi-Fi in healthcare has become a "must have", with the Wi-Fi Alliance predicting in 2016 that the market for Wi-Fi healthcare services grew to US$1.34bn. The availability of the 802.11ac Wi-Fi standard has driven much of this growth, as it provided the reliability and bandwidth required to connect critical health-care applications across hospitals, care homes, doctor surgeries and mobile clinics.

In Lamu County, a remote area of east Kenya stretching across mainland and over 65 islands, residents face extremely limited access to healthcare.

That's not helped by the fact many medical professional prefer to ply their trade in major cities such as Nairobi or Mombasa. It means there is a lack of specialists with just two doctors to every 10,000 patients.

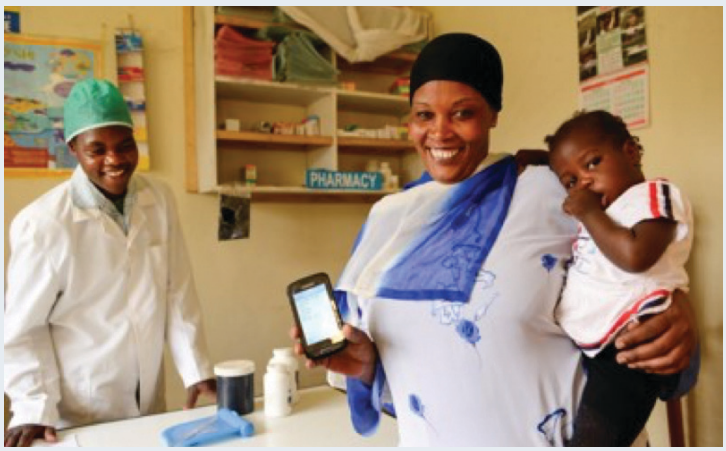
At Lamu County Hospital many staff haven't even received basic life-support training and are unable to give their patients the level of care they want to provide.

This is forcing residents to travel great distances to reach medical facilities with 86% of patients spending more on transport than on healthcare.

However, there has been a key technological development in recent times. Now, Lamu's residents will have access to care-at-a-distance through the telemedicine project initiated by Huawei, Safaricom and local partners, which allows local healthcare workers and patients to remotely consult with specialists in towns and cities. For Lamu residents such as Zainab who had had to travel long distances at enormous cost just to receive a diagnosis and ongoing treatment for her hypertension, this new remote consultation is life-changing.

Given the scarcity of licensed doctors and specialists in Lamu, telemedicine will transform medical care for low-income families in the region who incur vast travel expenses to reach professional care. In fact, telemedicine is set to reduce travel time by up to 12 hours and travel costs by US$20 per patient; and 50% more patients will attend referrals each year, leading to significantly better patient outcomes.

Most importantly, Lamu patients now have access to earlier, cheaper and better diagnosis and treatment as well as better follow-up care through remote specialized consultations, medical education, and monitoring. ■



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Ian Watson
CEO
Cellcard

Yogesh Malik
Group CTO
VEON

Isabelle Hajri
CMO
Ooredoo Algerie

Barak Alon
Chief Data Officer
Partner Israel

Tarek Abdelrahman
CMO, Consumer
Telecom Egypt "WE"

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Africa: the next big feature phone opportunity?

Sebastien Codevile, CEO of KaiOS Technologies explores the potential of "affordable" smart feature phones

With more than 300 million "dumb" phones in use and 800 million people still unconnected to the internet, Africa is the next frontier for smart feature phones. But even with this vast opportunity, challenges still loom large on this magnificent continent.

Many people believe that Africa is poor. With an average income of $6.6 per day and 36% of the population living in extreme poverty (on less than $1 per day), there is some truth to that. At the same time, many countries on the continent are showing signs of growth. According to the World Bank, Sub-Saharan Africa economies are expected to grow at 2.6% this year, accelerating to 3.7% by 2020.

Zooming in closer—beyond just the macro-level numbers—signs of this progress appear all across the continent. Governments see the importance of technology and are driving policy and capital towards modernizing infrastructure. As a result, homegrown technological innovation is happening and start-up hubs are springing up everywhere.

Powered by connectivity

One of the remaining hurdles to fuel this growth is affordable connectivity. As mentioned in the introduction, almost 800 million people in Africa are still unconnected today. Despite the progress in many areas, several barriers stand in the way of widespread internet access:

1. Poor network infrastructure
2. Device affordability
3. Costs of data
4. Lack of localised content
5. Financial inclusion

Let's look at these issues in detail.

Poor network infrastructure

Network infrastructure in Africa is of poor quality, especially in rural areas. For example, Nigeria's average mobile download speeds clock in at just 16.01 Mbps, far below those in developed markets—between 30 to 40 Mbps. While urban areas are starting to see decent 3G and 4G coverage, smaller towns and the rural countryside rely on 2G connectivity. This detail is important because the story of Africa is still a rural story, with 62% of the population living in the countryside.

Luckily this situation is changing. The business case for improving mobile connectivity in rural areas is becoming more evident to carriers, especially since the launch of KaiOS-powered phones like the MTN Smart T, Orange Sanza, and TECNO T90. As such, network operators are starting to upgrade their infrastructure to 3G and 4G/LTE, even outside of the big cities.

Device affordability

In Africa more than anywhere else, device affordability is a crucial barrier to moving people from 2G voice and text-capable phones to 3G/4G devices that can access the internet. According to research from GSMA, the threshold lies at US$34. Below that point, even those in the lowest income groups are capable of upgrading to a data-enabled phone.

Until recently this barrier forced people to choose between a feature phone without internet access, or an ultra low-budget smartphone with a limited user experience. Now, with KaiOS-powered smart feature phones in the market, there is an attractive alternative: a device that is affordable, yet provides a smooth user experience and all the essential capabilities of a smartphone.

Costs of data

Once a user has purchased a phone, there's still the "cost of ownership" in the form of a monthly data plan that has to be factored in. Most smartphones come with a data plan of at least $10 per month. For someone who can't afford a $35 phone, such monthly costs are unacceptable.

To reduce the costs of data, KaiOS Technologies works closely with network operators to design new data plans priced between a 2G (voice and text) plan and a full-blown smartphone data plan.

There are many ways in which we achieve reduction of data costs together with carriers and content providers:

- KaiOS minimizes data requirements on both the OS and content (apps) side.
- We work closely with partners to provide specific content and features that don't require additional charges.
- We're implementing advertising solutions that give users free data in exchange for engaging with ads.

Lack of localised content

Africa is not Silicon Valley. This observation seems obvious, but it doesn't get enough thought when you consider how our modern tech products are developed. While innovation is on the rise in emerging markets, products coming out of Silicon Valley—and to a lesser extent other parts of the USA—still form a disproportionate amount of our tech "intake."

There is nothing inherently wrong with this. Many of the innovations from this infamous region in California are truly phenomenal and satisfy universal needs. Yet some problems can only be identified and addressed by a local, someone who's familiar with the culture and lifestyle in a specific region.

There are already great examples of this, like Anitrack (which allows farmers to track their livestock), Asoriba (a church management application for worshippers and religious leaders), and LetiArts (and African gaming studio). But on this point, there is still a gap in Africa, or at least an opportunity to bring the local content that's already available to a much wider audience. Growing the number of connected users, while simultaneously supporting local developers, is what's needed to bring the digital revolution to everyone in Africa.

Financial inclusion

In places like Nigeria, Tanzania, and Uganda, less than half of the adult population have a bank account, nor have they ever conducted a digital payment. Also, less than 10 percent of the adult population receive income (e.g., wages, social security) via a bank account. A lack of trust and access to financial services cause these issues.

Financial inclusion needs to improve dramatically to drive the digital revolution in Africa. Without the means to easily make and receive payments, innovation is slowed or even blocked altogether. It also makes the job of poverty reduction difficult as people can't plan their financial futures and are unable to do the most important thing that leads to prosperity: saving.

Research finds a strong correlation between mobile internet connectivity and financial inclusion—the adoption, usage, and sustainability of financial services. The rise of mobile money on smart feature phones can play a central role in extending the reach of formal financial services in Africa, as demonstrated by the success of mobile money services in countries like Tanzania, Uganda, Kenya, and South Africa.

The emerging ecosystem

With all of the above pieces coming together, the smart feature phone is now a compelling proposition to change the digital landscape in Africa.

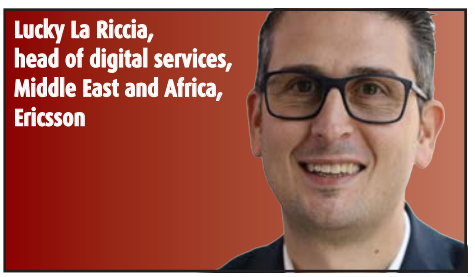
The device and monthly data plan are affordable even for those in the lowest income groups. With support for local developers and content—in addition to the global apps that are already available on KaiOS—people will be able to enjoy the fruits of the digital revolution in areas like education, entertainment, business, health, and finance. This means real progress towards closing the digital divide and a positive impact on the lives of millions of people in Africa in the years ahead. ■

The shift to 5G: innovative capabilities to extend far beyond previous generations

Africa is on the road to 5G and here's how it's going to take this journey. Lucky La Riccia, Ericsson's head of digital services at Ericsson Middle East and Africa tells all

If you visited GITEX in Dubai back in October, you would have seen first-hand just how quickly technology is moving and changing the way we live. There was a flying motorcycle and other incredible technological advances that caught the eye of visitors and global media outlets.

The Ericsson booth was, unashamedly, a tribute to 5G. From the immersive sports demo to remote operation of vehicles, VR football, telemedicine and 5G connected music, healthcare and gaming, Ericsson's booth welcomed a sea of people excited to know more about our 5G future.



Lucky La Riccia, head of digital services, Middle East and Africa, Ericsson

Journalists, analysts, consumers and Crown Prince of Dubai Sheikh Hamdan bin Mohammed

"It is a technology which can enable millions of different use cases"

bin Rashid Al Maktoum stopped to check out technologies that were unimaginable in the past and are now at our fingertips.

But why is all the emphasis on 5G when it seems like a distant dream for most countries?

There is a push for 5G deployment in order to enhance both the consumer and enterprise experience. It is a technology which can enable millions of different use cases. Some of the use cases will be immensely beneficial to society, not even in the future, but already now. When you think about efficiently connected healthcare, it is positioned to make a positive impact in people's lives. These are all experiences enabled by the high throughput and low latency of 5G that none of its predecessors have been able to achieve.

With the growing demand from consumers, industry and IoT for mobile communications, service providers today are focusing on improving the performance and efficiency of 4G networks, while supporting their digital journey towards 5G.

We, at Ericsson, support service providers with three key goals: secure relentless efficiency, enhance customer experience and open new revenue streams while providing consumers with more cost-efficient services.

Our main aim is to help service providers maintain their networks with the latest technology so they can benefit from all that advanced technology offers and provide their customers the best mobile broadband experience available. 5G, Cloud Native and automation will be necessary to our customers, in their pursuit for relentless efficiency and optimal end-user experience in mobile broadband.

It is important to note that 5G is not just a technology shift, it is an innovation platform that will accelerate the development of countless use cases. There is no doubt that similar to global consumers, African population also share the great desire for fast speeds and unique use cases the next generation of mobile wireless is poised to deliver, and this poses a great opportunity to grab.

Talking about the future, we're at a critical time for 5G as selected markets roll out their 5G networks and early adopters get their hands on the first 5G-enabled devices. What operators need now is to enhance their networks to pave the way for 5G deployment – which will help them migrate to 5G in their own time and in alignment with their business needs.

PHOTO: ERICSSON.COM

Ericsson's GITEX booth welcomed a sea of people excited to know more about our 5G future

A frequently asked question is – Will increased bandwidth mean poor coverage?

The answer is simple. At the end of the day, 5G in itself is a tech shift. Coverage and bandwidth is something that each service provider really needs to plan, design and optimize, so it's not inherent that if you have one it will result in another. Like any other technology shift, 5G requires strong planning and implementation and this is an important factor to be considered for any operator.

It is ideal to formulate use cases first and then talk about the network, bandwidth or other aspects of planning that go into developing a successful strategy and ensuring a timely rollout and improved customer experience.

I know a lot of people will wonder how operators in Africa will make a good business case when so many consumers live on very low incomes. It's important to remember that 5G isn't just a consumer technology. Yes, 5G will offer lower latency, higher throughput and an enhanced mobile broadband experience for the consumer – helping to meet the mobile data demands of tomorrow. But it will also help bring to light new business opportunities not addressed today.

In fact, the benefit to the end-consumer doesn't end there. Service providers will be able to address new value chains and revenue streams in the digitalization of industries.

This is where you get effective use cases in the areas of mobile healthcare. Or think about manufacturing or oil and gas, a lot of these industries can benefit from making decisions on the fly and facilitate greater benefits for the society at large. Although enhanced mobile broadband is the first "high profile" use case for 5G, these are just some of the opportunities emerging from the digitalization of industries.

At the core of all this innovation is a singular idea – that ICT has the power to transform society. It plays a key role in each of the United Nations' Sustainable Development Goals, providing the infrastructure needed to achieve them. It also enables financial inclusion through m-commerce and allows people to connect with millions instantaneously.

What's more. Ericsson is working hard to bust myth around healthcare issues associated with 5G. It is important to note that independent expert organizations have established the exposure limits for radio waves based on many years of research. The limits are recommended by the World Health Organization (WHO), among others, and include large safety margins. 5G equipment, whether it be mobile devices or base stations, will meet the same safety standards as the equipment used in previous mobile communication networks.

So, are we all ready?

I can certainly speak for Ericsson and globally, Ericsson is currently supporting 19 5G live networks across 4 continents. All those networks use Ericsson Radio, Ericsson Core, or both. In the Middle East and Africa alone, we've announced four contracts so far. When it comes to Africa, we support our customers with the same commitment and passion in their journeys, providing them with flexible options to transition forward in the best way that suits them and their consumer. ■

5G is a technology which can enable millions of different use cases. Some of the use cases will be immensely beneficial to society, not even in the future, but already now

Aussies consider fire-proofing networks

Australian telecom companies could fireproof their networks after a large number of outages during the bushfire crisis.

At the fires' peak in the first week of January, more than 100 base stations in the three bushfire-affected states were out of action, according to communications minister Paul Fletcher. A week later, 30 had still not been restored.

Operators have deployed interim services through "cell on wheels" units or satellite. Telstra is offering residents free Wi-Fi via Wi-Fi-enabled payphones.

In a recent blog, Fletcher, a former executive at operator Optus, said the biggest cause of outages had been the loss of mains power supply rather than the destruction of the equipment. Most had backup power sources but these lasted only a limited time.

However, he said the physical resilience of future networks had become a big issue for operators.

Optus, the country's second-largest operator, said that of the 17 base stations out of action in early January, seven had been damaged by fire and would require a full or partial rebuild. Vodafone said it had lost 19 base stations, of which six had been restored by January 9.

Comtech acquires Gilat Satellite Networks

Comtech Telecommunications has agreed to acquire Israel's Gilat Satellite Networks for approximately $532.5m.

The former will pay US$10.25 per ordinary share in cash for 70% of Gilat's stock and 30% in Comtech common stock.

"I am excited to have reached this agreement with Gilat and believe this combination is beneficial to the stakeholders of both companies," said Fred Kornberg, chairman and chief executive (CEO) of Comtech. "The acquisition better positions Comtech to take advantage of key marketplace trends, particularly the growing demand for satellite connectivity and the enormous long-term opportunity set that is emerging in the secure wireless communications market."

Dov Baharav, chairman of Gilat added: "I have long admired Comtech's commitment to technology leadership and I firmly believe that employees will have expanded opportunities for career development. No doubt, the future will be very bright for Comtech and Gilat and all of our stakeholders."

Gilat's largest shareholder is private equity firm FIMI Opportunity Funds, which holds a 34% stake, followed by Mivtach-Shamir Holdings with 9.7%

Founded in 1987, Gilat offers broadband satellite communication and networking services. The company's largest shareholder is Israel-based private equity firm FIMI Opportunity Funds, which holds a 34% stake, followed by Mivtach-Shamir Holdings with 9.7%.

Magyar Telekom facing questions

Magyar Telekom said it received a resolution from the Central Bank of Hungary (MNB) about the Hungarian operator's disclosure obligations under EU insider trading rules.

The MNB asked the country's largest telecom company for additional information over a suspected delay in the disclosure of inside information, to be supplied within three working days.

Magyar Telekom said its aim is to always abide by requirements concerning the handling of inside information. It will decide on any possible future steps after reviewing the resolution of MNB.

The statement followed the bank fining IT company 4iG Ft5m for keeping an inaccurate record of the timing of its failed acquisition of T-Systems Magyarorszag. MNB said the company broke an EU regulation on market abuse as it wrongly determined when the insider information on the deal falling through had actually occurred.

Monaco Telecom coy on Vodafone Malta staff retention

Monaco Telecom, which is taking over Vodafone Malta in a €250m deal, has yet to provide a guarantee that it will retain all current employees of the local operator.

Speaking to journalists in early January, chief executive officer (CEO) Martin Peronnet said decisions about retaining workers would depend on discussions with the current management and on how Monaco Telecom would "reorganise itself in order to be very efficient, independent and innovative".

Monaco Telecom announced a deal to take over Vodafone Malta in late 2019 and is hoping to finalise the regulatory process with the Malta Communications Authority by March, he said.

Peronnet also said his firm had no other businesses in Malta so it did not foresee any major difficulties.

He told the media it was too early to provide detailed information such as whether the provider would be introducing television services to its customers, dismantle or keep the Vodafone Foundation charity and bring down tariffs.

"We are here to expand the footprint of the company, and we won't be able to do that through raising the prices," Peronnet added. "Will it mean bringing them down? I don't know yet, but we are here to be competitive."

However, he confirmed that Monaco Telecom will not be bringing over its staff and cited a company precedent in Cyprus.

Monaco Telecom bought out the second largest telecoms operator there, Epic, around a year ago and entrusted its local management to run the business.

Monaco Telecom announced a deal to take over Vodafone Malta in late 2019

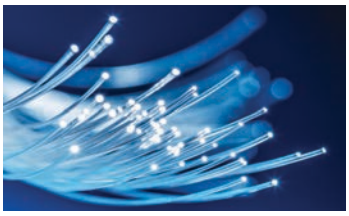
Paraguayan fibre-optic network to be completed by February

Paraguay's national fibre-optic network (Red Nacional de Fibra Optica, or RNFO) is expected to be completed by February.

The RNFO initiative is aimed at unifying the fibre networks of state operator Copaco, utilities company Administración Nacional de Electricidad (ANDE) as well as the Ministries of Interior and Finance. Copaco operates around 180,000km of fibre, while ANDE has around 120,000km. The ministries have approximately 200km and 74km of fibre respectively.

Paraguay's Ministerio de Tecnologías de la Información y Comunicación (MITIC) made this announcement despite the fact that just 14,000km of infrastructure had been integrated at the end of 2019.

The convergence contract was awarded in February 2019 to domestic firm Celexx, which is believed to have a close working relationship with China's Huawei.



Copaco operates around 180,000km of fibre, while ANDE has around 120,000km

Telekom Romania ups prices again

Telekom Romania has announced the third price increase for its services in less than a year, because its indirect main shareholder Deutsche Telekom (DT) is now seeking buyers for its Romanian subsidiaries.

The service fees will rise by €0.42 per subscription, regardless of whether its fixed (internet, voice, cable TV) or mobile services.

DT's representatives have resumed talks with the new government, which still controls 46% in the fix line operations and indirectly, a smaller part in the mobile telecom operations.

The price hike is explained by the rising costs and "the need to remain economically viable", DT executives said.

"In the context of increasing costs related to the communications services, as well as to further ensure economic viability, Telekom Romania needs to change the conditions for the provision of electronic communications services and to increase some of the fees for the communications services in its portfolio," the company added. "This change is also influenced by the higher costs in all business sectors, in the current economic landscape."

América Móvil fined US$70m by regulator

América Móvil, the telecom firm run by the family of Mexican billionaire Carlos Slim, has been fined US$69.53m by Mexico's telecom regulator.

The Federal Telecommunications Institute (IFT), said in a statement that it fined the company for failing to share information about the availability of its telecom infrastructure, such as posts, with competitors.

América Móvil said in a statement that the regulator's action reflected a "lack of due process," and it vowed to exercise "all legal remedies to challenge it".

It added: "This arbitrary, illegal and disproportionate fine affects the legal certainty in a sector that requires important investments."

América Móvil has long dominated Mexico's telecom market and is required to open its infrastructure to industry rivals in order to promote competition. However, competitors have complained that they do not have sufficient access.

The fine was levied against one of América Móvil's subsidiaries, Teléfonos del Noroeste (Telnor), after the IFT found the unit had failed to share the necessary information as of September 2017. The penalty represents 6% of Telnor's revenues.

Broadband growth predicted for Argentina

Argentina will see strong growth in the rollout of fixed broadband lines in the next four years, according to new research.

Data and analytics company GlobalData said fixed broadband lines in the South American nation will rise from 8.4 million recorded in 2019 to 9.9 million by the close of 2024, led by operator investment in fixed infrastructure.

The report says that growing demand for high-speed data services on fixed lines among residential and business customers, along with government initiatives to expand broadband services to rural and underserved areas, have led to the investment. It estimates that fixed broadband penetration will increase from an estimated 18.6% in 2019 to 21.0% by 2024.

Cable will represent 42.2% of total fixed broadband lines in 2019 and will remain the leading broadband technology through to 2024. Fibre lines will grow at the fastest compound annual growth rate (CAGR) – 13.1% over 2019-2024 – mainly supported by rising demand for high-speed broadband connectivity and ongoing fibre network roll-outs by operators like Movistar Argentina.

State-owned satellite company ARSAT will also receive US$154m from a universal service fund (USF) by 2020 to help complete the Federal Fibre Optic Network, which is a federal backbone network made up of 13 geographic regions, as well as provincial networks interconnected to the backbone.

The report estimates that fixed broadband penetration will increase from an estimated 18.6% in 2019 to 21.0% by 2024

Ukraine readies launch of LTE-900

The Ukraine's national telecommunications regulator NKRZI has unveiled the schedule for the implementation of LTE services on the 900 MHz band in the country.

It will first be introduced in four regions of west Ukraine from July, including Zakarpatia, Ivano-Frankivsk, Lvlv and Volin, according to local media reports.

In August, the Ternopil, Rivne, Chernivtsi and Khmelnitskiy regions will be covered, while the Zhitomir, Vinnitsia, Odessa and Kiev regions will follow in September. The process will end with the Zaporizhzhia, Lugansk and Donetsk regions in December.

Mobile operators Kyivstar, Vodafone Ukraine and Lifecell have submitted a joint application to re-farm their frequencies in the 900 MHz band. Other firms operating in the country include Intertelecom and Ukrtelecom.

Vodafone Greece revenues up 2% in December

Vodafone Greece saw service revenue in the fiscal third quarter to December 31 increase by 1.9% on an organic basis, as growth in prepaid ARPU was partially offset by increased fixed competition. Reported service revenues decreased to €219m from €220m year-on-year.

Mobile customers reached 4.563 million at the end of December, a decrease from 4.849 million in the previous quarter and from 5.046 million in the same period in 2019. At the end of last year, postpaid customers represented 35.6% of the company's total customer base, up from 33.6% in the previous quarter and from 32.6% in the same period last year.

The operator lost 286,000 customers in the quarter, of whom 281,000 were prepaid, while its total number of fixed broadband customers reached 943,000, up from 937,000 in the previous quarter and 939,000 a year ago.

Elsewhere, mobile data usage dropped to 18,329 TB from 27,181 TB in the previous quarter but increased compared to 12,677 TB a year earlier Vodafone Greece' mobile ARPU for the quarter was €9.9, slightly down from €10 in the previous quarter but up versus €9.5 in the year-earlier period.

Meanwhile, Vodafone Greece entered into an exclusive partnership with HBO to secure the exclusive rights to HBO's content for its Vodafone TV cable TV subscription service. HBO content was previously available in the country through satellite platform Nova.

Mobile customers reached 4.563 million at the end of December, a decrease from 4.849 million in the previous quarter and from 5.046 million in the same period in 2019

Greenland chooses Ericsson over Huawei

Greenland has picked Ericsson over Huawei to supply equipment for its fifth-generation (5G) telecoms network, state telecom operator Tele Greenland confirmed.

It said the decision had been made after considering issues like "quality, price and security in the broadest sense" and that choosing between the Swedish and Chinese firms was not simple.

"It's hard to say which network is best," chief executive Kristian Reinert Davidsen told broadcaster KNR. "We just found that Ericsson was the right choice for us based on all the parameters. It was from an overall point of view, and I can't say if one is safer than the other. 5G is coming to Greenland, but no date has been set for this yet. We do not see Huawei as a possible supplier of (Tele Greenland's) 5G network."

A Huawei spokeswoman in Denmark said the company was not aware of any plans for 5G rollout in the autonomous territory within the Kingdom of Denmark.

"Huawei has no mobile network business in Greenland and had no plans to participate in any 5G rollout in Greenland," she said.

Ericsson, which last week was picked by Norway's Telenor as key technology provider of the country's 5G network, also supplied Greenland's 4G network. A spokeswoman for the Swedish company Ericsson declined to comment on future plans for 5G rollout in Greenland, but said Tele Greenland is "an important customer" and that its current 4G network in Greenland is based upon Ericsson's 5G ready products.

In 2019, privately held Danish telecoms operator TDC also picked Ericsson over Huawei for its 5G network. TDC said it was a commercial decision, but that it "was not blind" to widespread concerns about Huawei and information security.

Tele Greenland said the decision had been made after considering issues like "quality, price and security in the broadest sense"

Channel Islands duo may have 'breached competition law' with 5G networks

The Channel Islands Competition and Regulation Authorities (CICRA) said that operators JT and Sure may have breached competition law over the construction and operation of 5G networks.

Comprised of Jersey and Guernsey's Competition and Regulation authorities, CICRA released a statement which said the two companies will now have the opportunity to respond to allegations.

Fifth generation internet, or 5G, would bring faster data download and upload speeds compared to 1G which just allowed voice calls.

CICRA is in charge of issuing licences and setting rules for telecom companies entering the 5G market.

Sure and JT have both tried to get involved in the technology that has been criticised.

The authorities said they will consider any representations before they take action as to whether competition laws have been broken.

Telecom Fiji confirms no major breakdown

Telecom Fiji said it did not encounter any major breakdown to any of its 47 major exchanges and radio transmission stations following Tropical Cyclone Sarai in late December.

Chief executive officer (CEO) Charles Goundar said the telecom infrastructure is still intact and that the firm will conduct a more detailed assessment, especially the passive network elements like tower structures to double-check.

He said, depending on the outcome of the assessment, it will decide what to do and share the plan with their customers.

Due to power outages, most of the remote roadside nodes were offline, although only some residential customers, along with those in remote islands, are having issues due to power outages, Goundar added.

HYLA Mobile partners with Admin Plus

HYLA, the mobile device repurposing vendor, has partnered with South African insurance firm Admin Plus to deploy its latest machine learning technology, which allows the latter to see the state of the device remotely. Admin will be able to see things like cracks and water damage from afar to help it issue short-term policies quickly. This helps to significantly reduce its risk exposure to fraud.

Cellnex buys out OMTEL

Spanish wireless infrastructure operator Cellnex has reached an agreement with Altice Europe and Belmont Infra Holdings, to acquire 100% of Portuguese telecom towers and sites operator Omtel for a fee of €800m. The acquisition also covers the rollout of 400 sites within the next four years. Cellnex said this build-to-suit (BTS) programme could be enhanced with up to 350 additional sites through 2027. Omtel currently operates 3,000 sites in Portugal, which represents around a quarter of the telecommunications towers in the country.

Myanmar re-imposes shutdown

Myanmar has re-imposed an internet shutdown in two conflict-torn western states, after partially lifting the blackout five months ago, Norwegian mobile operator Telenor Group said. The firm added that the transport and communications ministry had ordered mobile internet traffic to be blocked again in five townships in the states of Rakhine and Chin for three months.

Q&A

Gerard Lokossou
CEO
Orange RDC

What is the best thing about your job?

The best thing about my job is the constant change and challenges that come with it. The telecommunications and digital technology industry moves and changes all the time and at a very fast pace. Therefore decisiveness, flexibility, excellence in execution and speed are critical in my job, in order to stay ahead of the game. Because of these evolutions and changes in the industry, I also often have the feeling that I am working every year in a new company as I constantly evolve my mindset by unlearning and re-learning new ways of working. A second thing that I find really interesting in my job is coaching and working with people to make them grow – I would say I have a collaborative leadership style. This is because I have learnt that when trust in leadership exists, it brings out individual responsibility and accountability in every team member.

Who has been your biggest inspiration?

A lot of people have had an impact on my career – at different stages and in different ways. I would say however, that my greatest inspiration so far was my CEO, during my first telecommunications experience some years back. Although he had an academic background in engineering, he was very comfortable in holding in-depth conversations across various business areas. Moreover, his leadership style was very open and authentic and one of my greatest learnings from him is that pressure should never be an excuse to neglect the human side of the business. He was always able to balance the need to achieve the business bottom-line whilst finding the time and the financial investment to ensure employee engagement and make employees happier at work. This is something I always try to keep in mind and reiterate in my role.

What is your biggest regret to date?

I would not describe any of my experiences or decisions as regrets. Sometimes we win and sometimes we do not. I think what is important and most valuable in both scenarios is the learnings I take away from them. Every experience is a new learning curve and regrets can only come when we lose without taking lessons from it! If I lose from one decision I make, I try to understand why as to do things differently.

"A lot of people have had an impact on my career – at different stages and in different ways."

What would you say is the best technological advancement in your lifetime?

With the rapid advancement across all industries resulting from technology, I would say the best technological advancement of my lifetime is yet to come. There is no doubt that we are making great progress in all industries, thanks to technology and I look forward to seeing where this will lead us to. Perhaps what I am looking forward to the most is seeing these technological advancements in medicine: that will help further cure cancer or neurological conditions such as autism for example.

What is the best business lesson you have learned?

Over the years, I have noticed and learned that performance is a relative notion. The main factor for true success is to never be satisfied with the status-quo. You have to be very curious, have a critical eye on things and be able to unlearn and re-learn constantly to do better.

"Over the years, I have noticed and learned that performance is a relative notion. The main factor for true success is to never be satisfied with the status-quo."

If you had to work in a different industry, what would it be?

I have worked so far in FMCG and the telecommunications industries. I really enjoyed working in both these industries as the learnings I have made are invaluable. As I said before, I never have two days the same! If I had to change, I think I would perhaps try the supply chain or the logistics industries. Other interesting ones would also be mining or the renewable -energy related industries. There is a lot going on in these areas.

What is the biggest challenge the industry faces at the moment?

Speed. Although we cannot deny that the speed of technological evolution is bringing positive advancement in all areas of business, it also brings its challenges. Finding the right balance between what technology offers and the time required to benefit from an optimal return on the huge investment needed to deploy and maintain the related infrastructure is a big challenge that we have to face.

What, in your opinion, holds a lot of African nations back?

I believe it is primarily our mindset and myopic aspirations for the continent. Most of the African countries are yet to realise that our potential can only translate to value if we are able to transform them into concrete beneficial actions. We are potentially rich; but only potentially until we work it and translate it into infrastructure and platforms that will enhance communal wealth and progress. There is still a lot of awareness to be raised on this.

Which rival do you most admire and why?

I don't think there is one I can specifically name – I respect all of them, for different reasons, and that makes me eager to continue to learn from them and to grow in my role and as a person.

What do you want to do when you retire?

Spend a lot of time with my family whilst further exploring my passion for farming. I want also to keep mentoring the new and future generations to help them maximise their true potential and have a greater and better impact in their society. ■

"What I am looking forward to the most is seeing these technological advancements in medicine: that will help further cure cancer or neurological conditions."

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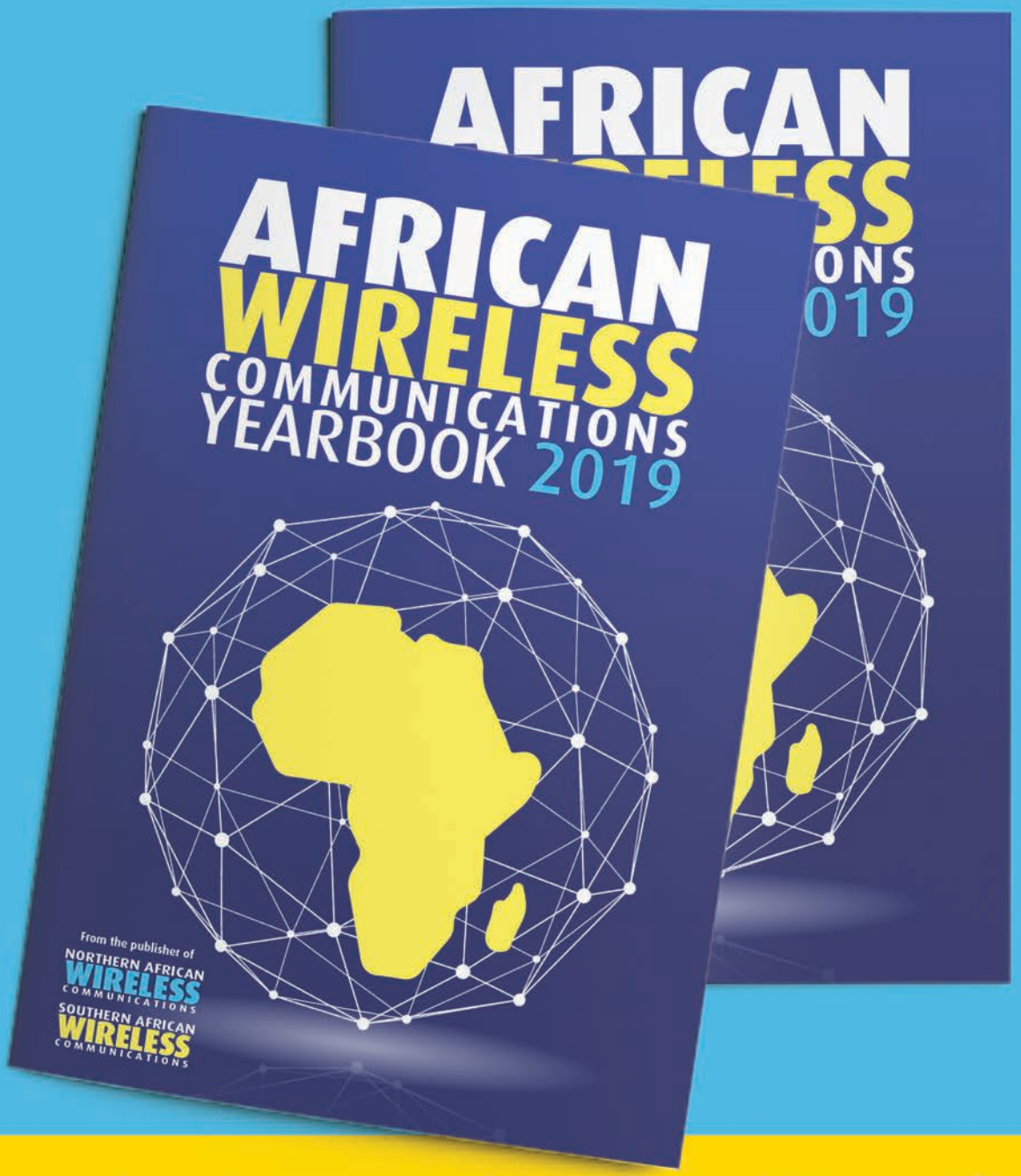

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