For communications professionals in northern Africa

NORTHERN AFRICAN WIRELESS COMMUNICATIONS

JUNE/JULY 2019 Volume 18 Number 3

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- New Wi-Fi installations for business planes and a port
- Are 'smeature' phones a smart business move?

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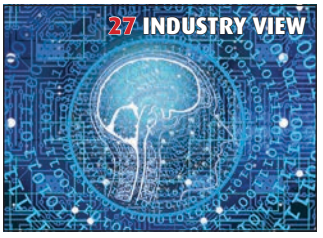
CONTENTS



SUBSCRIPTIONS:
Northern African Wireless Communications is a controlled circulation bi-monthly magazine. Register now for your free subscription at www.kadiumpublishing.com
Readers who do not qualify under the terms of control can purchase an annual subscription at the cost of £110. For more information and general enquiries please contact Suzanne Thomas at suzannet@kadiumpublishing.com or call +44 (0) 1932 886 537.

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Printed in England by The Magazine Printing Company

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Google wants partners for new Europe-Africa cable system

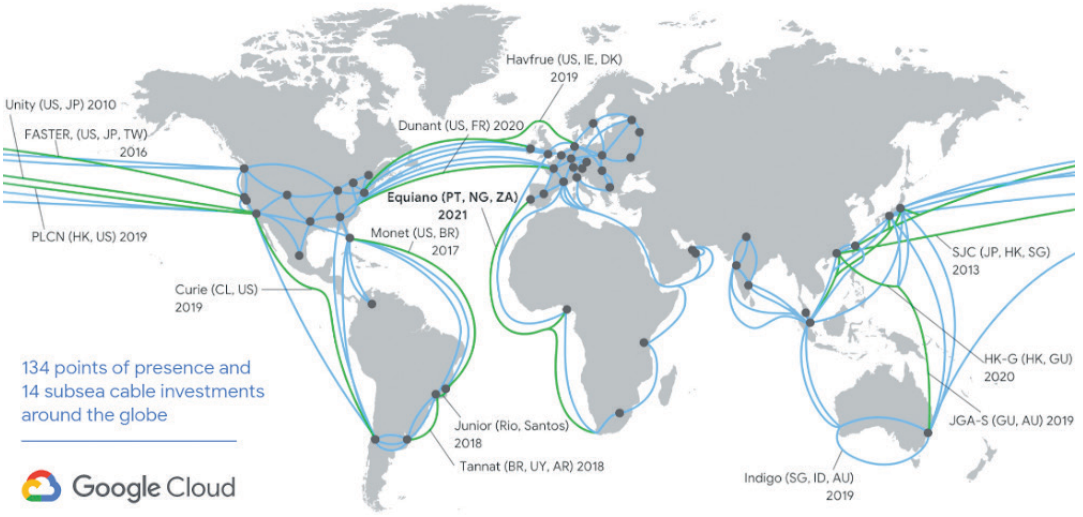
Google has unveiled plans for its new private subsea cable that will connect Africa with Europe and is looking for partners to help link it up with various countries along the route.

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

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

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

Equiano is named after Olaudah Equiano, a Nigerian-born writer and abolitionist who was enslaved as a boy. Its infrastructure is based on space-division multiplexing (SDM) technology, which Google said means approximately 20 times more network capacity than the last cable built to serve the region.



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

Furthermore, Equiano will be the first subsea cable to incorporate optical switching at the fibre-pair level, rather than the traditional approach of wavelength-level switching. Google said it greatly simplifies the allocation of cable capacity, giving it the flexibility to add and reallocate it in different locations as and when it is required.

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

Global chooses Eutelsat to back up WAPP

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

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

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

"After a successful partnership in Mauritania three-years-ago, we are delighted to be working alongside Global Technologies once again with assisting WAPP in achieving its ambitious shared energy project in the west African region over the coming months," said Philippe Oliva, Eutelsat's chief commercial officer.

Jean-Paul Steinitz, chief executive officer at Global Technologies, added: "To support WAPP in its vision to promote and develop power generation and transmission infrastructures across west Africa, we have teamed up with Eutelsat to leverage the prime capacity available on its EUTELSAT 10A satellite. "Thanks to Eutelsat's reliable and cost-effective satellite coverage of the region, GLOBAL Technologies will contribute to offer better and cheaper access to power for millions of people by delivering telecom infrastructure to connect the WAPP countries."

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

Cape Verde to build new telecom connection

The European Investment Bank (EIB) has agreed to provide US$25m for the construction of a new telecom connection that will enable 4G mobile services and improve international connections to Cape Verde.

It forms part of the EIB's commitment to supporting small island states around the world. Furthermore, it comes at a time when the country's existing communications rely on a single submarine cable that is reaching the end of its operational life. Connection to the EllaLink cable, to be financed by the new EIB loan, will unlock a wide range of opportunities for the west African islands.

The EIB has supported investment in Cape Verde since 1979, with nearly €150m in financing to date.

The European Investment Bank, Luxembourg

Sudan internet up and running again after month-long shutdown

Sudan's ruling Transitional Military Council finally restored internet connectivity in mid-July following a shutdown that lasted over a month.

Users can now access the 3G and 4G data connections, as well as use social media platforms.

The council ordered the shutdown in June 2019 after widespread public protests broke out following the ousting of president Omar Al Bashir.

Councillor Shamseldin EL Kabbashi said the delay in restoring the internet was aimed at cementing the power sharing agreement that has been agreed between the council and the Alliance for Freedom and Change (AFC), a pro-democracy movement that had been organising protests

"We delayed the return of the internet in order to maintain the agreement," said Kabbashi. "Soon a meeting will be called between the Transitional Military Council and AFC to unite the media discourse."

Khalid Omar, secretary general of the opposition Sudanese Congress Party, noted the development follows a court order in the case filed by lawyer Abdelazim Hassan and the Consumer Protection Association against the country's telecom firms.

Omar added that the shutdown was a violation of people's constitutional rights. "The most important thing in the decision of the return of the internet is that it came by judicial order," he said.

The blackouts, which began June 3rd , have resulted in a loss of access for mobile and fixed line connections, though connectivity had improved from 2–10% compared to normal levels.

The council ordered the shutdown after widespread protests broke out following the ousting of president Omar Al Bashir

Ghanaian arrested for alleged mobile fraud

A 30-year-old Ghanaian man has been arrested in the US for allegedly stealing people's identities and creating false accounts through mobile phone companies in order to buy devices.

The Monongalia County Sheriff's Department, West Virginia said Daniel Acheampong is just one of the people being investigated for stealing people's identities and creating false accounts through mobile phone companies.

From June 11th–20th, deputies intercepted packages of the fraudulently purchased phones being delivered as part of the scheme, a release said. It also said that Acheampong was arrested when he retrieved the phones from his porch.

The Ghanaian man has been charged with grand larceny, fraudulent schemes and attempted grand larceny and arraigned in the Monongalia County Magistrate Court.

Acheampong is currently being held in North Central Regional Jail on a $45,000 bond.

Liberian government investigates regulator

The Liberian government said it will investigate the country's regulator following complaints of an internet and social media blackout during recent civil protest action.

People took to the streets of Monrovia June 7th in protest at corruption and economic decline.

A complaint was lodged by Grand Bassa County District 5 representative Thomas Goshua and the House of Representatives instructed its committee on posts and telecommunications to investigate the Liberia Telecommunications Authority (LTA)

The 12-hour shutdown is understood to have incurred a loss among ISPs and the government of an estimated US$109,913 in revenue.

The minister of information, cultural affairs and tourism Eugene Lenn Nagbe said the government was informed of threats to the country on that day and stated that blocking online and social media platforms was necessary "because of security concerns".

Ugandan tech plant to roll out solutions by year-end

Chinese electronics firm ENGO Holdings has begun construction of a mobile phone and laptop computer manufacturing and assembly plant in Uganda, with the first solutions expected to be rolled out before the end of the year.

Speaking at the signing ceremony, the Ugandan state minister for finance, investment and planning Evelyn Anite said some of the products to be manufactured and assembled at the plant will have self-charging solar units, making them suitable for rural areas.

"It is good news that for the first time we are not going to be importing computers from Europe, America, China and from all over the world because we will be buying them locally. It is very expensive to import these computers," she said.

Uganda is home to 22 million mobile phone subscribers, according to the country's National Information Technology Authority (NITA)

ENGO Holdings executive director Yu Qing said the company planned to invest US$15-million over five years and initially, the plant will produce 100,000 mobile phone devices per month.

The company's flagship brand is Simi Mobile and both analogue and smartphones will be manufactured.

"The plant will rely on Chinese imported motherboards, screens, touch panels, batteries, cameras and speaker receivers and vibrators, as well as circuits for the domestic manufacture of phones until qualified Ugandan workers have been trained to undertake the commercial process from Uganda," Qing said.

The country is home to 22 million mobile phone subscribers, according to Uganda's National Information Technology Authority (NITA).

American Tower buys out rival

American Tower has agreed to buy African masts business for US$1.85bn including debt.

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

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

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

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

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

PHOTO: AMERICAN TOWER

Both companies have a presence in Ghana and Kenya – amongst others – and the deal will allow the business to build more in Africa

Huawei wants Morocco to be 5G pioneer in Africa

Chinese tech firm Huawei said it wants Morocco to be the first country to launch 5G in Africa.

The company outlined its goal for the north African country at the 9th annual North African suppliers conference in Skhirat, south of Rabat in July.

"We are the [world] leaders in 5G, and we want to be the leader in Morocco," said Chakib Achour, the marketing and strategy director of Huawei in Morocco. "We want the Kingdom to be the first to launch 5G in Africa." According to Achour, the company is now only waiting for the green light from the government.

5G is the new generation of mobile internet connectivity, which promises much faster data upload and download speeds, wider coverage and more stable connections.

However, Huawei does face stiff competition in this space. In March 2019, competitor Ericsson organised a live 5G demonstration at Maroc Telecom headquarters in Rabat, showcasing the technology's capabilities.

According to a recent report by the Moroccan National Telecommunications Regulations Agency (ANRT), access to the internet by Moroccan households has increased three-fold over the last eight years. Some 74.2% of households now have internet access.

Airtel launches Niger's first 4G LTE network

Telecom firm Airtel has launched Republic of the Niger's first 4G LTE network, almost a year after it paid US$22m for its 4G licence.

The 4G network is available nationally, making Niger the first country in Africa where Airtel's 4G network is available nationwide from launch.

Airtel, the dominant player in the country, described the feat as "a new chapter in the telecommunications revolution in Niger".

At the official launch ceremony in the capital Niamey, Sani Maigochi, Niger's minister of posts, telecommunications and digital economy, said the launch chimed with the government's vision for the digitisation of the country.

Airtel Niger chief executive officer Pierre Canton-Bacara agreed. "Airtel's 4G LTE network will undoubtedly trigger a new phase of accelerated, equitable and inclusive economic growth, thanks to the increase in broadband services," he said.

The Nigerien government said it was hoping the introduction of the 4G LTE network would revitalise the telecom sector, improve digital services and accelerate the slow growth rate of the local telecoms sector – specifically to help achieve the goal of 70% penetration by 2020.

Airtel controls more than half of the market share, according to the Regulatory Authority for Telecommunications and the Post (ARTP).

Other players are Atlantique Telecom Niger SA, Orange Niger SA and Niger Telecom SA.

Hormuud launches Somalia's first ever corporate scholarship scheme

Somalia's Hormuud Telecom has introduced the first-ever corporate scholarship scheme by a company in the country.

The company's chief executive officer Abdukarim Karie said that the move was aimed at empowering the youth and promote education.

"Our goal is to create jobs for the youth and sustain them in the country," he said and added that the company was committed to improving the country socially and economically.

Karie also said that for the past 15 years the company had created many job opportunities and that it was obliged to give back to society through corporate social responsibility initiatives.

Hormuud is the leading telecom company in Somalia, a position reached through innovative communication and money transfer initiatives.

ACT to register fibre optic infrastructure

The Kenyan Information and Communication Technology (ACT) Authority said it will carry out a registration of all the fibre optic infrastructure in the country to enhance management.

In a published notice, it advised all owners of fibre cables to declare their location and details of their network.

The register will help mitigate losses that both the government and private investors incur during implementation of road and fibre infrastructure caused by cuts or road destruction. Kenya had some 200,000 fibre optic subscribers at the end of March 2019, up from 175,824 in December 2018, according to the Communication Authority of Kenya.

Kenya is currently building a countrywide fibre infrastructure called the National Optic Fibre Backbone, in partnership with the Chinese government, aimed at connecting all 47 devolved units in the country.

Google introduce new products and tools for African consumers

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

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

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

"In the next few months, Google will introduce a new directions experience for Lagos that is optimised for informal transit, bringing Danfo routes into Google Maps," the firm said in a statement. "To help make it easier to visually explore places in Nigeria, Google is publishing more panoramic imagery on Street View. Starting with imagery of Lagos two years ago, today Google added Street View imagery of Abuja, Benin City, Enugu and Ibadan – with almost 12 thousand kilometres of roads added."

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

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

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

"We hope that the products and updates we're announcing today will make Google even more helpful for fuelling people's hustles and getting things done," said Google Nigeria country director Juliet Ehimaun Chiazor. "We remain committed to bringing the transformational power of technology to everyone in Nigeria and Africa as a whole."

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

Ethiopia approves new telecom legislation

Ethiopia's parliament has approved a draft law that would allow foreign companies to invest in its telecom industry. The law further establishes an independent communications regulator in the country, which is accountable to the prime minister and is charged with promoting competition.

It also says that ownership of telecoms companies "shall be open without limitation to private investors including both domestic investors and foreign investors".

Lawmakers "approved into law the Ethiopian Communication Regulatory Proclamation," innovation and technology minister Getahun Mekuria posted in a tweet. "This is a huge step in reforming the telecom sector."

The law repealed several pre-existing ones on which the country's state-owned telecoms monopoly, Ethio Telecom, was founded.

Mauritania needs 'stronger regulation' to boost mobile - report

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

The report by market research and data house Research & Markets said efforts have been focused on implementing appropriate regulatory measures and promoting the further penetration of fixed-line broadband services, by improving the national backbone network. That ensures connectivity to international telecom cables and facilitates operator access to infrastructure.

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

Most voice and data services are carried over the mobile networks maintained by Mauritel, Mattel and Chinguitel and the report said population penetration of 3G is relatively high. However, as yet there are few developments in LTE and as a consequence mobile broadband access speeds are low, placing a break on the potential for mobile commerce and related applications.

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

GCT reports numerous acts of vandalism

Ghana Chamber of Telecommunications (GCT) said that between January and June 2019 it recorded acts of vandalism that highly disrupted activity and affected the quality of service it provides customers. Overall, GCT reported a total of 2,000 cuts of optical fibre and 600 thefts of equipment, including 240 batteries.

It resulted in costs of around GH¢30m (US$5.7m) in repairs; a figure not initially planned. To successfully navigate a repeat scenario in H2, GCT committed on July 15th to launch awareness raising campaigns about the importance of telecom facilities across the country but mainly in regions where incidents of theft are most recorded.

Derek Laryea, head of the Chamber's department of research and communications said the campaign aims to get public work companies, road management agencies, service providers, local government, regulators and consumers, involved in the protection of telecom facilities.

ATS readies itself for 'people's' satellite internet service

Algérie Télécom Satellite (ATS), a branch of incumbent operator Algérie Télécom, is preparing the launch of the satellite internet service dedicated to individuals and residents in September 2019.

The Algerian satellite Alcomsat-1 that ATS plans to bring high-speed internet connectivity to isolated and unserved border areas is expected to significantly help improve the internet penetration rate in Africa's largest country by land mass.

Currently, the ATS service is aimed at multinational, enterprises and professionals who demand a high-capacity data service. The new residential offering will focus on landlocked areas and other remote regions still poorly or not at all covered by the internet.

As a result, the management team at ATS noted that the cost of the new service will be "a little higher than that of ADSL" justified by the cost of the kit that is not like wired equipment.

According to the latest statistics from the Regulatory Authority for Post and Electronic Communications (ARPCE), Algeria had 34.6 million internet subscribers, or 82.06% penetration rate.

The residential satellite internet service is also expected to reduce the digital divide between rural and urban areas, contributing to the digital society that the government is committed to building through various investments to avoid being left behind in the fourth industrial revolution.

In addition to providing services, ATS also aims to export its know-how internationally, particularly in satellite management.

Government launch Chad digital review

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

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

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

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

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

WhatsApp now available on KaiStore

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

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

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

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

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

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

Cameroonian operators join forces

Cameroon's mobile phone operators have formed an association to secure bargaining power and give each member stronger representation.

Known as Association des operateurs concessionnaires de telephonie mobile au Cameroun (AOCTM), the new alliance will be an avenue for dialogue between operators, the regulator and the supervisory administration, said its president Frédéric Debord.

AOCTM will promote mobile telephony operators and electronic communications development in Cameroon. It will also take all appropriate action, administrative or legal, to protect its members' collective interests.

"The creation of this association is a step in the right direction," said Debord. "It shall be a platform of exchange and sharing amongst telecom operators, regulators and regulatory authorities."

Its statutes indicate that it is open to any operator that has signed a mobile telephony concession agreement with Cameroon and registered itself as an operator with the regulatory agency.

Three operators are already qualified as members of this organisation – Orange, Nexttel and MTN.

Cape Verde mobile phone access drops

The number of Cape Verdeans with mobile phone access in 2018 was at its lowest level in the last three years.

According to the BMI 2018 report published by INE, approximately 70.4% of the population had at least one mobile device, compared to 74.2% the previous year. Almost a quarter (22.1%) of Cape Verdean children aged between 10 and 14 years had a personal mobile phone at the end of 2018.

Elsewhere, fixed telephony access continued to fall, being present in only 20.7% of households and down by 10.3 percentage points compared to 2014.

The BMI 2018 also found that 37% of households had at least one PC. Of the 156,582 households, 70.1% had internet access at home, mainly via mobile phone (67.8%).

Cajutel targets increased connectivity in west Africa

Cajutel has been awarded a Tier 1 ISP data services licence for its crypto project to start operations in Sierra Leone. The Switzerland-owned and Guinea Bissau-registered business wants to use its Ethereum-based platform to increase connectivity and access to high-speed broadband in Guinea Bissau and Guinea. Chief executive officer Andreas Fink said the plan was to first build the infrastructure that would bring reliable and affordable internet then come up with a cash transfer system that will work over it targeting its first customers in six–12 months. "I have seen the market in many places in Africa," he said. "And all countries who have good internet are booming. And by good internet I mean reasonable speeds at affordable costs. What we see in west Africa, however, is bad quality, extremely high prices, no capacity. It's at the speed level I had in Switzerland in 1994 when I started my first internet provider 'Ping Net' but 50% more expensive."

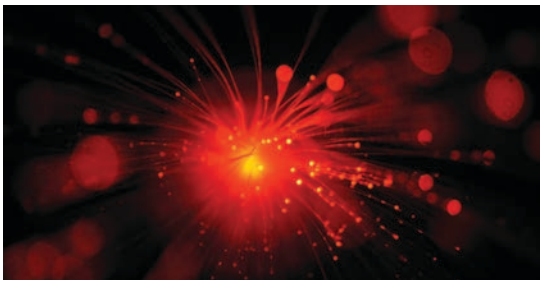
Liquid connects South Sudan to the rest of the world

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

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

South Sudan will link to Liquid's network across the region which covers the East African Community, a regional intergovernmental organisation of six partner states; Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda. It is thought the network will connect up to 300 million people.

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



Phase one of the agreement will include a 300km fibre backbone operating from the border of Uganda, through South Sudan, to Juba

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

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

Cameroon's Orange and MTN served with fines

The Cameroon businesses of Orange and MTN have been fined north of US$160m for failing to pay taxes on games and gambling services.

A probe into the sector led to fines totalling US$283m and found other companies including Camtel and Viettel were also in violation of regulations.

MTN and Orange were also accused of not paying taxes on their money transfer system, known as Mobile Money

The amount paid by each company was not clear, but in the report the Telecommunications Regulatory Agency said MTN and Orange were also accused of not paying taxes on their money transfer system, known as Mobile Money.

MTN is already contesting a $3.9bn fine in neighbouring Nigeria for failing to disconnect users with unregistered SIM cards, which can be used for criminal activity – a growing concern in Nigeria facing the threat of militant Islamist group Boko Haram.

The South Africa-based firm successfully lobbied to get the fine reduced from US$5.2bn in December 2018.

Kenya joins South Africa in backing tech giant

Kenya has joined South Africa in throwing its weight behind embattled Chinese tech giant despite the ongoing US-China trade war.

Speaking in late July, Kenyan telecom minister Joseph Mucheru made it clear that Kenya would not be influenced by what was going on in Washington.

"Our policies are not driven by US policies as far as technology is concerned [...]. We pick what is best for us," he said. "We are not going to be tied to what other people say, but we are going to make sure we get value for money for our citizens."

Huawei, which is currently the leader of 5G, but considered by the US and its allies as a threat to the security of digital networks and systems.

Adam Lane, Huawei's senior director for public affairs in Kenya, said the restrictions imposed by the US would not affect its business in Africa. "We will continue working with suppliers around the world and diversifying our supply chain to prepare for all scenarios," he added.

According to reports, Huawei was working with Google to produce a Google Assistant-powered smart speaker, before the plans came to a halt following the US ban in May this year. The details come from an anonymous Huawei employee confirming the impact that the stand-off with US has had. The Trump administration has accused Huawei of using its technology to spy for China.

Teleforum appoints chairman

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

TT signs MoU for LoRaWAN

Tunisie Telecom has signed a memorandum of understanding (MoU) with IT firm 3S for the launch of a LoRaWAN internet of things (IoT) national network developed by LoRa Alliance. The two companies said the project is mainly aimed at addressing the various emergencies requiring the transmission of small quantities of long-range information with energy and cost constraints. It is also aimed at enterprises and start-ups in their IoT projects.

Globalstar gets all clear

Globalstar has received the mobile satellite services (MSS) and terrestrial green light in South Africa, Mozambique, Gabon and Rwanda. The four territories join Botswana to represent a population greater than 100 million people, annual GDP of over a half a trillion dollars and more than 1.7 billion MHz-POPs of licensed coverage across Africa. "Africa is a rich market for our terrestrial and satellite services and Globalstar is committed to bringing its unique mix of solutions to the continent to meet the communications needs of the next generation of African businesses and consumers," said Jay Monroe, Globalstar's executive chairman of the board. "

Talking satellite

Martin Jarrold, chief of international programme development, GVF

Satellite's front line

Previously I focused on Africa's satellite ascendancy. This time I want to look at a potential threat not just to this ascendancy, nor one affecting a single continent, but one casting a shadow over the future of satellite communications worldwide.

It is a recurring threat, a regular feature on the telecommunications agenda, but attaining particular prominence with each quadrennial ITU World Radiocommunication Conference (WRC), as the mobile wireless sector ramps-up its cycle of repeated effort to displace satellite from its spectrum in various frequency bands.

Now, as we approach WRC-19, these efforts are revealed again with even greater vigour than was evident in 2015. Yet this just at a time when the providers of the latest generation of mobile networks have clearly acknowledged the imperatives of these networks as having a greater degree of – critical – dependence on satellite compared to any of the earlier generations of cellular systems. To put it at its most succinct – satellite is integral to the 5G architecture Network of Networks.

For example, at WRC-19 the mobile industry plans to introduce a future agenda item to identify additional portions of C-band for "International Mobile Telecommunications" (IMT), namely 3600-3800 MHz. Given that the IMT identification made at WRC-15 in 3400-3600 MHz remains largely unused in Africa, there is no practical justification for additional spectrum for IMT in C-band. Such additional identification will not serve the needs of Africa and will only cause disruption to the critical satellite services being provided in C-band.

GVF has various sister associations around the world, each with their respective geographic or market segment focus. In combination, these organizations work together as the Global Satellite Coalition (GSC) (https://gscoalition.org/). GVF is represented in the GSC via its own Regulatory Working Group. Among GSC's priorities is to advocate for the role of satellite in achieving complete connectivity, contributing to the UN Sustainable Development Goals (SDGs) and the Broadband Commission's connectivity objectives, to realizing the Network of Networks required for 5G and ensuring satellite services are an essential element of national broadband strategies and universal service programmes.

In the GSC, the position of African nations regarding the preservation of spectrum for satellite use is recognized as extremely important. A dedicated GSC Africa Group meets regularly and the agenda of the next meeting will address updates from GSC representatives attending Southern African Development Community (SADC) and East African Communications Organization (EACO) meetings, as well as preparations for the African Telecommunication Union (ATU) meeting over 17–21 June.

GSC's strategic mission is paralleled, and facilitated, by evolving in-orbit infrastructure taking us beyond, only, geosynchronous (GSO) systems, and on through growth of HTS and Medium Earth Oribt (MEO) systems, and now to the current emergence of the mega-LEO (non-GSO, or NGSO) constellations. Investment by the industry in these constellations is improving the quality and reach of satellite services, as well as enabling development of satellite-based solutions to a wide range of new emerging markets. The industry's goals require that the necessary spectrum is satellite's to use (whether in GSO or NGSO); that it is not re-allocated (as in the case of current commercial satellite use of C-, Ku- and Ka- bands) or assigned (as in the case of future commercial use of Q- and V- bands), as an outcome of WRC-19 or WRCs beyond that.

There are still some older, underlying, problems to resolve in the region. For some, access to satellite services has been made unnecessarily difficult by restrictive regulation, particularly regarding earth station licensing. Despite the existence of many transparent regulatory and licensing regimes, satellite solutions providers still encounter jurisdictions where licensing practice is an impediment because of complexity, application processing times, and prohibitive costs (individual earth station fees, 'landing rights' fees, operator fees) added to which are often-imposed requirements for an in-country commercial presence which brings additional overheads. The satellite industry, through its only globally focused representative association – GVF – has engaged in long-established advocacy for earth station network 'Blanket Licensing', replacing individual earth station or terminal licensing.

This advocacy, for all fixed satellite service (FSS) systems, is set out in the GVF's International VSAT Policy Declaration: Regulatory Recommendations & Guidelines. It establishes the case for transparent and ease of access to licensing procedures, for speedy execution of licensing applications, and for licensing fees to be set at a level to cover administration costs only. When licensing fees are set too high this only adds to a continuation of a deeply rooted misconception that satellite services are expensive. Reducing bandwidth prices and earth station terminal equipment costs have been a feature of the satellite solutions market for many years, and yet there is a still often-held belief that satellite services are expensive, a misconception fuelled by excessive fee levels.

In closing, I would like to reference a forthcoming event for which I will be part of the moderating team, Cellular Backhaul 2019, embedded in the largest 5G-focused event in the world – the 5G World Summit. It is premised on the recognition that satellite will be integral to the operation of 5G networks and to the entire ecosystem of the Internet of Things/ Internet of Everything Everywhere. The IoT/IoEE will be everywhere; with NGSOs, satellite really will be ubiquitous. Today satellite networks complement the offering of terrestrial networks, providing connectivity to areas not reachable by terrestrial means, enhancing the universal service obligation of African countries. Whilst this would seem such a perfect pairing there will be problems to resolve, particularly in ensuring that satellite-IoT regulation will not stifle a huge growth market, one of particular importance for the remote geographies of many regions of the world, including Africa.

NEC XON signs cooperation agreement for sub-Sahara Africa with INCELL International

NEC XON has partnered with INCELL International to use its smart lithium technology to serve the needs of wireless and tower communications operators, macro and small cell sites and the commercial and industrial sectors specifically with off-grid, micro-grid and backup solutions.

INCELL develops some of the world's most advanced lithium batteries to provide backup power for telecoms sites and employs innovative engineering controls to successfully make lithium solutions that are safe for robust industrial-commercial applications.

"INCELL's smart lithium batteries use half the space of lead acid batteries, weigh a quarter, and provide five times the energy density. These smart lithium cells also have a much longer service life, especially in cyclic environments," says Magnus Coetzee, MD of NEC XON's Alternative Energy division. "They're designed for indoor and outdoor use so you can literally disconnect lead acid batteries, connect these, change a few parameters on your existing rectifier system and walk away."

With the more advanced hybrid power systems, provided by NEC XON it is easy to achieve real-time communication and monitoring of the INCELL batteries.

The NEC XON remote monitoring and control system embedded in the Hybrid Storage System (HSS) enables remote access assistance for site optimisation, performance- and fault analysis.

The NEC XON HSS solutions is built on INCELL Li-Ion batteries and offer much lower TCO calculations with life spans of 10 to 15 years with daily charge and discharge cycles.

The solution also comprises advanced generator management using patented algorithms for tracking the generator's maximum power, balancing three-phase power, and anti-stalling to improve uptime, optimize fuel consumption, and extend the generator's life.

Fast charging at optimal power cuts reduces generator run times and allows the use of smaller battery banks cycled more than once a day. The solution is compact and uses little space.

INCELL International CEO, Stefan Jansson, says, "NEC XON has a very strong presence in Africa. Our technologies meet some of the industry's greatest challenges on the continent, such as the need for a small footprint, lower total cost of ownership (TCO), anti-theft, automatic reconnect and ease of use."

Coetzee adds that there is low electrical energy penetration across vast tracts of Africa.

"This partnership will help us take energy opportunities to previously neglected areas, coupled with renewable technologies such as solar and wind," he says.

Jansson and Coetzee believe the partnership will support the needs of the market in replacing lead acid batteries. Lead acid batteries have comparatively short lifecycles at just a couple of years compared with greater than 10 years for INCELL smart lithium batteries in field tests. Lead acid is suitable for domestic use and has scrap metal value, which makes it a target for criminals. The higher voltage range of lithium technology, for example the 42V to 58V range, together with INCELL's state of the art anti-theft solution, makes our offering not only robust but also makes the batteries unusable if stolen.

Energy storage, particularly in the commercial and industrial sector, has traditionally not delivered the requisite returns on investment (ROI), says Coetzee. But innovative technologies encapsulated in the INCELL engineering have developed strong business cases for storage based on field use, particularly for backup, peak shifting, renewable integration, demand reduction, and peak shaving cases.

"Telecoms networks are becoming smarter," says Jansson. "They increasingly need critical services such as emergency calls and connected security devices and they have to deal with regional challenges such as theft, remote solutions and solutions with small footprints. Lithium technology and the intelligence we embed in the devices ensures operators get better availability, lower TCO, reduced theft and the interrogative data they need to manage and control their services."

NEC XON and INCELL jointly offer solutions and services for smart lithium power backup which will help the mobile operators and tower companies improve predictability and lower the operational cost.

This cost-effective energy storage also improves the case for photovoltaic solar energy solutions that are particularly beneficial across Africa's sun-profuse landscape. The continent is also characterised by vast distances, which make supporting generator solutions difficult and costly. Other socio-economic factors also make generator systems more lucrative targets for criminals.

INCELL is now launching its next-generation smart lithium batteries to sub-Sahara Africa through this exclusive distribution agreement with NEC XON. They introduce a new design with additional features and a technology platform developed to be flexible and robust. INCELL's product portfolio covers the range from 30 to 250Ah, including 19"- and 23"-wide products and pole-mounted versions ideally suited to 5G rollouts, among others.

In cooperation with NEC XON, INCELL will prepare to manufacture in the African continental free trade area. The partners will establish manufacturing capabilities in South Africa with local services options by NEC XON to better serve continental customers by shortening lead times and reducing costs. ■

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

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

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

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

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

"The financial services sector worldwide is disrupted by rapid consumer adoption of new technologies and changing regulatory frameworks on payments, privacy and cloud computing," said Pieter Zylstra, regional director digital transformation and financial sector lead for Middle East, Africa and Turkey at Orange Business Services. "These changes require banks to alter their operating models, especially in Africa and the Middle East. Combining digital banking solutions from Orange with Genesis Analytics' deep regulatory understanding of the African and Middle East financial sector provides our customers with a better service to address financial inclusion challenges ahead."

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

PEOPLE MOVES & CHANGES

Date	Name	New employer	New position	Previous employer	Previous position
1/9/19	Thato Motlanthe	MTN Group	Executive for investor relations	Absa Asset Management	Portfolio manager
24/7/19	Abdoul Ly	ARTP (Senegal's regulator)	Director general	Abm Technologies	Chief executive officer
17/6/19	Sahem Azzam	Orange Business Services (OBS)	Vice president Middle East and Africa	N/A	N/A
1/6/19	Juba Mashaba	Cell C	Chief human recourses officer	Aveng	Director of human resources
18/4/19	Eddy Kapuku	Airtel Madagascar	Managing director	Airtel Madagascar	marketing director

INVESTMENTS, MERGERS, ACQUISITIONS

Date	Buyer	Seller	Item	Price	Notes
1/7/19	Maroc Telecom	Millicom International Cellular	Tigo Chad	NA	Deal is 100% acquisition

LATEST COMPANY RESULTS

Date	Company	Country	Period	Currency	Sales (m)	EBITDA (m)	EPS (units)	Notes
22/7/19	Maroc Telecom	Sweden	H1 2019	MAD	MAD3bn	N/A	N/A	Figure relates to profit
17/7/19	Ericsson	Sweden	Q2 2019	SEK	SEK54.8bn	N/A	N/A	Shares fell the most since early 2018 on quarterly results
15/4/19	Sudatel	Sudan	Annual	USD	326m	N/A	N/A	Overall operating revenue of US$326m was down by 36 per cent from US$513m in 2017.
31/3/19	MTN Group	South Africa	Q1	ZAR	NA	N/A	N/A	Revenue increased year-on-year by 4.6%.
31/3/19	Telecom Egpyt	Egypt	Q1	EGP	6.09bn	N/A	N/A	The company's revenue rose 27.41 percent to EGP6.09bn in Q1 2019, compared to 4.78bn pounds in Q1 2018.
30/7/19	Huawei	China	H1	CNY	401.3bn	N/A	N/A	Aggregate revenues up 23% year-on-year

ONSA joins telecom aviation fight

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

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

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

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

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

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

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

Telecom Egypt and Juniper Networks sign new deal

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

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

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

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

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

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

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

"In any event, mobile operators will be held accountable for violating legal requirements as a result of their negligence in ensuring that formalities relating to subscribers' registration are fully complied with," said prosecutor Gilbert Togbonon.

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

Vodafone Egypt slapped with E£10m fine

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

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

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

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

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

Airtel Kenya loses US$6.7m

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

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

"In 2018, incidents of cash control frauds were identified in the Airtel Money operations in Kenya, which involved circumvention of its controls by Airtel Money employees and resulted in loss of $6.7 million (Sh670 million)," Airtel Africa said.

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

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

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

Safaricom names board member Michael Joseph as interim CEO

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

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

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

In a statement dated July 1st, 2019 – the day Collymore passed away – and signed by company secretary Kathryne Maundu, Safaricom said: "The Board is confident that during this transition, Mr Joseph will provide the necessary guidance and leadership to the Company and its employees."

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

Safaricom and Wananchi fight in broadband space

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

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

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

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

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

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

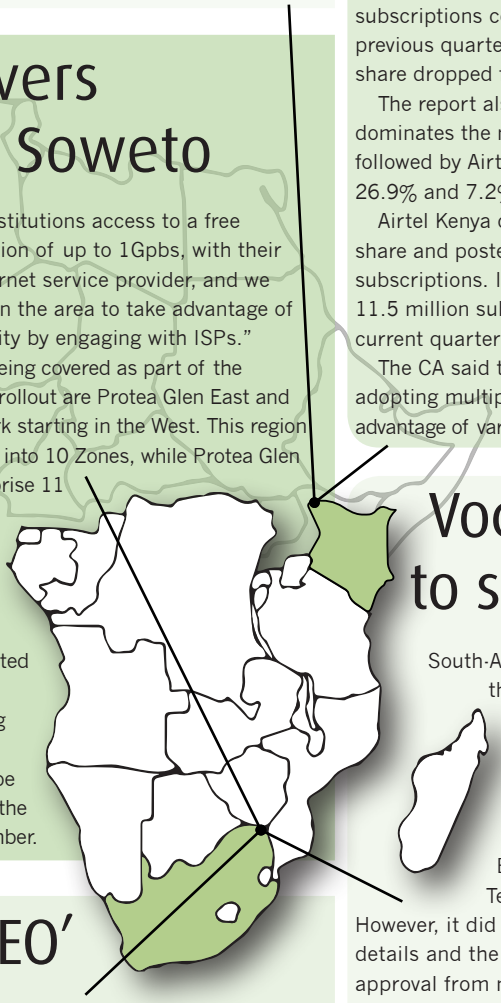
Frogfoot Networks delivers broadband coverage to Soweto

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

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

"Providing world-class connectivity has been the main driver behind this project, and we are excited to be the first fibre to the home (FTTH) provider in this area. Increased access to the internet can help improve economic growth in the region," said Shane Chorley, head of sales at Frogfoot. "As with other areas covered by Frogfoot fibre, schools within the coverage area can apply for a fibre link as part of the company's schools promotion campaign, which gives these institutions access to a free FTTH connection of up to 1Gpbs, with their preferred internet service provider, and we urge schools in the area to take advantage of this opportunity by engaging with ISPs."

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



Vodacom looks to sell in Africa

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

In Angola, the company said it plans to divest its Business Africa unit to Internet Technologies Angola (ITA). However, it did not disclose any financial details and the agreement is subject to approval from market regulatory authorities.

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

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

Naspers appoints new CEO'

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

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

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

Launched at the South Africa Investment Conference in October 2018, the former is a R1.4bn start-up fund aimed at boosting the South African technology sector. In addition, it will help talented and ambitious South African technology entrepreneurs develop and grow their businesses.

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

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

Enabling thousands of pensioners in rural South Africa through satellite connectivity

Africa is a rapidly urbanising continent, with approximately 50% of the population expected to live in cities by 2030[1]. Despite this societal shift, and the fact that a strong road system is vital to a modern economy, many African cities face a common set of transport-related hurdles that slow a society's mobility.

The case in South Africa is slightly different.

Boasting a 747,000 kilometre road network – the largest among all African countries – it is inconsistency in the country's telecommunications infrastructure, which must stretch across a vast landmass, that causes a disparity between major cities and rural areas.

Some 34% of South Africa's 58 million-strong population live in rural areas[2], resulting in large sections of the population lacking proper access to telecommunications services. Despite over 80% of South Africans owning a mobile phone, connectivity in rural areas remains low[3].

The lack of connectivity, leading to lack of access to government services and other essential digital services in the modern economy, poses a challenge for South Africans to keep up with the hyper-connected world around them.

Digitisation and a strong infrastructure are imperative to support widespread connectivity, which will play an integral role in ensuring South Africa's economic competitiveness.

The challenge faced by one group in particular provides a valuable lesson in the wider cost of digital exclusion to a society – pensioners.

Members of the Government Employees Pension Fund (GEPF) and approximately 300,000 pensioners make up a portion of South Africa's unconnected, and as a result, are unable to access their funds. A further estimated 10% that qualify as beneficiaries are also unaware or unable to access the money they're entitled to, limiting the contribution they can make to the local economy.

Until recently, teams of GEPF advisers visiting rural areas was the only way pensioners in these areas could gain financial advice and services related to their government income. Online access was necessary to submit information, and without it, most of the monthly GEPF visits were ineffective.

To ensure these pensioners could access their funds though the online pension system, YahClick, the satellite broadband service of UAE-based global satellite operator Yahsat and its partner Hughes Network Systems, was called upon to collaborate with South Africa's Government on an initiative that would bring 'always-on' broadband connectivity to unserved and underserved regions. YahClick had already proven to be an enabler of socio-economic development across Africa and other parts of the world, providing connectivity to remote schools and clinics, connecting rural public libraries and by digitising government and non-government services.

Aware of the correlation between investment in broadband and the growth of economic activity, YahClick set out to revolutionise connectivity in South Africa in 2012. Working with Vox Telecom, YahClick set up a fleet of YahClick

Go trailers, providing a robust and efficient solution to on-road connectivity.

"Public servants are spread throughout the country even in the most rural areas. And those people cannot get into a car and drive to a regional office – a physical building and speak to a government Employees' Pension Fund representative," according to the GEPF. "So, we created this initiative to take these services to those areas."

The YahClick enabled trailers act as mobile offices, which are connected by satellite broadband, to allow GEPF to deliver its services in the required location. The system can be operated by a single user, without them requiring any technical training. At the touch of a single button, the unit will automatically search for a connection via an auto-pointing antenna.

For the GEPF, the 11 deployed trailers offered instant access to dependable, high-speed satellite broadband for its members and beneficiaries. Consequently, the once hindered efficiency of the government to reach unserved and underserved pensioners through traditional terrestrial mobile connectivity had been solved.

The benefits of YahClick's services continue to transform the digital experience for pensioners in remote areas, and are close to serving the 10% of South Africans who cannot access their unclaimed pensions. Affordable and dependable satellite broadband services have resulted in 300,000 members and beneficiaries being able to immediately conduct research, make investments, and transfer funds from any location, no matter how remote.

According to YahClick, the service ensures customers can achieve the same performance in every location, regardless of landscape or terrestrial infrastructure. For example, you can be in a crowded city in the morning and in a small isolated village in the afternoon, and still access the same quality, high-speed satellite broadband from the same equipment.

In spite of infrastructural challenges, the nation's and indeed that of the entire continent's rural communities have always shown undeniable promise. YahClick is just one example of how ingenuity is helping these communities unlock their potential.

Increasing access to satellite broadband in these communities bridges the digital divide and is integral for large sections of Africa's underserved communities to compete in the digital age. Connectivity is a gateway for customers to interact with businesses and entrepreneurs – and vice versa. It opens the door to digital communities on social media and as well as new networking prospects. Ultimately, dependable connectivity empowers Africa's rural population, providing them with greater opportunities to prosper. In that sense, YahClick's affordable, secure and reliable service is quickly drawing the roadmap for Africans to digitise their communities. Access to pensions in South Africa is just one such example.

1 https://www.worldbank.org/en/events/2015/06/01/urbanization-in-africa-trends-promises-and-challenges

2 https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS

3 https://www.icasa.org.za/legislation-and-regulations/state-of-ict-sector-in-south-africa-2019-report

Thank you and farewell, 'bubbly Bob'

Bob Collymore telecom executive 1958-2019

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

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

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

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

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

James Mwangi, CEO at Equity Bank, who also worked with Collymore on the Kenya Vision 2030 board, added: "Collymore was an exemplary, visionary, innovative and dynamic leader of our time. He earned our respect for his visionary and exemplary leadership skills."

> **"Although Bob Collymore has left us, his inspirational life will remain a great legacy, not just to Kenyans, but also to the whole world"**
>
> *Uhuru Kenyatta, president of the Republic of Kenya*

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

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

Safaricom's products freed up millions of "unbanked" Kenyans to shop and pay for services at the touch of a smartphone. Kenya and east Africa then became the unassuming pioneers and leaders of cashless payments way before the likes of US counterparts Apple Pay and Google Pay had got out of the starting blocks.

The flagship M-Pesa service for mobile payments is thought to be used by some 20 million people. Although it was launched prior to Collymore's arrival at Safaricom, it was under his leadership that it became a staple of daily Kenyan life. He also oversaw the launch of the overdrafts service Fuliza and micro-savings service M-Shwari.

> **"He has continued even from his bed and from his house to give leadership to the company, for which we are truly grateful"**
>
> *Nicholas Ng'ang'a, board chair, Safaricom*

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

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

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

Collymore was also a formidable frontman and the Kenyan media dubbed him "bubbly Bob", a nod to his acid wit and jocular interviews. Talking to Kenya Citizen TV last year, Collymore even joked about his cancer treatment. He said that when medics told him chemotherapy would last six to nine months, he quipped: "Being a Safaricom person I thought we could probably do it in five."

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

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

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

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

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

OneWeb and Intellian in user terminal partnership

Communications firm One Web has partnered with Intellian to build user terminals designed specifically for remote enterprise networks, cellular backhaul expansion and remote connectivity needs.

The companies said the user terminals will be the units provided to customers to enable the high-speed, low latency service.

They further claim that the user terminals are "perfect" for a range of use cases including connecting businesses in rural areas, schools, hospitals, farms and community centres.

This partnership with Intellian represents a major step-forward in the development of One Web's system following the launch of its first satellites and its first customer announcements in February 2019. With six satellites now in orbit and a range of antennas now in place, One Web is aggressively looking to advance the development of its portfolio of user terminals, ranging from compact flat panels to highly-efficient dual parabolics.

"Our user terminals will always be designed with customer needs in-mind, ensuring we deliver a service they can trust," says Adrian Steckel, chief executive officer of One Web. "We're delighted to be partnering with Intellian and this agreement marks a major step forward in our efforts to bridge the global digital divide." *www.oneweb.world*

Comtech EF Data expands satellite modem product line

Comtech EF Data has expanded its satellite modem product line, introducing the SLM-5650C and SLM-5650C ODU CyberLynx software defined modems and enhanced performance options.

The company reckons the products feature "extremely compact form factors and software options" and can be integrated with a variety of platforms, while providing an upgrade path to support future requirements.

The SLM-5650C CyberLynx model is an indoor product that operates from -10°C to +55°C using conductive cooling. The heat is transferred from the electronics to the housing and then to an external mounting surface, such as a trailer wall. The SLM-5650C ODU CyberLynx model is an IP67 rated outdoor unit that is designed to meet MIL-STD-810G and operates from -32°C to +65°C.

"Building on our expertise with the installed and proven SLM-5650A and SLM-5650B Satellite Modems, we reduced the form factor (volume) of the SLM-5650C & SLM-5650C ODU CyberLynx approximately 90%, doubled the processing resources, reduced the maximum power consumption by 80% and increased the functionality compared to the SLM-5650A," claims Jeff Harig, senior vice president government systems for Comtech EF Data. "The proven performance of our offerings translates into reliability, scalability, and adaptability while optimising space segment for mission-critical communications for government, military and commercial applications."

The SLM-5650C and SLM-5650C ODU CyberLynx Software Defined Modems and the SLM-5650B Satellite Modem are all commercially available. For more information, visit *www.comtechefdata.com*

GetSAT and SatixFy collaborate to deliver advanced MCPC system

SatixFy, a provider of baseband modem and antenna chips, products and solutions and GetSAT, the manufacturer of innovative satellite terminals for aerial, maritime and land-based applications, are together offering an advanced MCPC system for what they claim is more highly efficient network optimisation to improve ground-satellite link conditions and data throughput. The collaboration will enable SatixFy platforms to operate and manage GetSAT micronised antenna and modem products. The system is designed with a cloud-ready architecture in mind. It utilizes a friendly and modern, easy to use management for existing and future GetSAT customers will be able to upgrade their SCPC terminals to operate inside an MCPC network with a shared DVB-S2X up-to 500MHz forward channel carrier at 1Gbps of data and on-demand allocation of DVB-S2X 50 MHz return channel at 200mbps. The solution will be monitored and configured "by an easy to use" network management system controlling the terminals and the space segment allocation. The MCPC system is based on SatixFy's Software Defined Radio ASIC technology, ensuring state-of-the-art DVB-S2X capabilities from VLSNR to 256APSK and data performance.

The new MCPC satellite system was showcased during Satellite 2019 in Washington, DC, in early May. *www.getsat.com*

Sepura announces update to SC21 TETRA hand-portable

Sepura has announced two significant updates to its SC21 TETRA hand portable, with the device now certified with an IP67 environmental protection rating, whilst also being made available for use in the UV band (403-470MHz).

The company claims that since its launch, the SC21 has proven popular with organisations looking for a compact, robust TETRA hand-portable with outstanding audio and enhanced user functionality through data applications. Alongside its sister device, the larger SC20 hand-portable "with its additional high-speed data bearer", the SC2 Series of TETRA radios are deployed by public safety organisations.

Sepura claims that having the SC21 available in the 403-470 MHz frequency band ensures that the device will now also be available to non-Airwave user organisations in many other global regions.

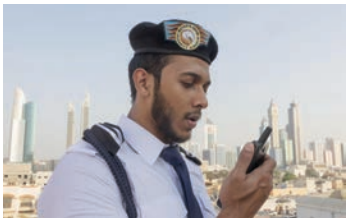
The firm also reckons the IP67 environmental protection rating ensures that the SC21 device has proven to remain operational even after the harshest of working conditions. For the user, this means that Sepura's radios should last longer and more reliably, even when used in dirty and wet environments.

Combined with features such as "water porting", extended receive sensitivity and the ability to add intelligent data applications through its AppSPACE software environment, Sepura believes the SC21 is a key tool in critical voice and data communications. *www.sepura.com*

Airbus introduces Dabat Hybrid Roaming feature

Airbus has unveiled a new feature called Dabat Hybrid Roaming, which combines its Tactilon Dabat hybrid TETRA/LTE terminal and its Tactilon Agnet 800 solution to allow users of the terminal to "seamlessly roam" between their TETRA network and LTE coverage.

Tactilon Agnet 800 is an app for smart devices such as the Tactilon Dabat; it enables the use of features such as push-to-talk, status notifications, text messaging, and emergency calls, along with the ability to switch to LTE coverage (the Tactilon Dabat's primary mode of operation is to use the TETRA network). Airbus claims the security of the solution is preserved because all Tactilon Agnet traffic is securely protected via the secure client's VPN.



The new service was introduced at Critical Communications World in Kuala Lumpur. *www.airbus.com*

Huber+Suhner outdoor MIMO antennas to ease urban 5G deployments

Huber+Suhner has launched "compact" omnidirectional and directional outdoor antennas for use in 4G and 5G deployments. It says the products will help operators with the challenge of providing cost-effective 4G and 5G in urban areas.

The new Sencity Urban 100 and 200 outdoor MIMO antennas cover both 4G and 5G high frequency ranges and the company claims they are "as compact as possible" for discreet installation in different types of street furniture, such as bus shelters, poles or walls, depending on the location, thanks to various bracket mounting options.

"Operators are under pressure to provide widespread, fast 4G and 5G coverage in urban areas where space is limited and existing infrastructure is condensed and our unique range of outdoor MIMO antennas can play a major role in overcoming these challenges in small cell deployment," said Claudia Bartholdi, Product Manager at Huber+Suhner. "At the moment there are no other antennas on the market that are as compact as the Sencity Urban 100 and 200 that cover 4G and 5G bands, so we are incredibly excited to be releasing the Sencity Urban series to the wider industry." *www.hubersuhner.com*

Globalstar SPOT X two-way satellite tracker now available in Africa

Globalstar's SPOT X two-way satellite communications device is now available in Africa to safeguard personnel working in remote or dangerous locations where mobile communications are unreliable.

According to Globalstar, the latest generation of the SPOT family offers two-way SMS and email as well as GPS tracking and a one-touch SOS button. This instantly sends the user's GPS location to the GEOS International Emergency Response Coordination Centre (IERCC) over Globalstar's satellite network and the IERCC then transmits details including the user's precise location to local first responders.

The company further claims that SPOT X is the only satellite messenger to give users a permanent phone number, easy check-in function and a full, backlit QWERTY keypad for intuitive typing. It also reckons the product has the industry's longest battery life in both tracking and SOS modes.

While SPOT is primarily known for providing SOS and tracking for adventurers including competitors in the Marathon Des Sables in the Sahara, Globalstar says SPOT has been increasingly adopted by enterprises and organisations to safeguard employees in high risk and hazardous environments.

SPOT users now include businesses, military organisations, NGOs, first responders and rescue agencies. Many use SPOT with third party applications that enhance worker safety with customised mapping and data management.

Globalstar says international wind technology provider, General Electric Wind Energy (GEWE) uses SPOT to track and protect workers as they install, operate and maintain onshore wind power installations in Morocco, Egypt, Ghana and Kenya. SPOT provides operations and security teams with a complete picture of each crew's location in almost real-time as they traverse remote terrain – sometimes with security escorts – to and from sites. Visit africa.findmespot.com for more details on resellers in Africa. *www.globalstar.com*

Look out for...

Unicom and Huawei team up for 5G pilot

GSMA's MWC19 Shanghai witnessed Beijing Unicom (China Unicom's Beijing branch) and Huawei complete an in-situ flow information telemetry (iFIT) pilot on the 5G transport network.

The iFIT service implements enhanced service recovery speeds to help Beijing Unicom build a visualised 5G transport network, through capabilities such as millisecond-level in-band flow measurement, real-time monitoring of network service quality to meet service level agreement (SLA) requirements and second-level silent fault locating.

Deployments are based on Huawei's 5G digital indoor system and extended 5G coverage to all of the seven exhibition halls.

Huawei's iFIT solution takes a hardware approach, using per-packet detection to identify minor exceptions in real-time service network traffic. Instead of using test packets, iFIT directly measures information carried in packets to obtain information, including the delay and packet loss rate of each service. The precision of service packet loss detection can reach 10-6, a 1000-fold increase compared to conventional methods.

The iFIT solution can be used together with telemetry's millisecond-level data collection, to implement real-time service quality visualisation and minute-level fault demarcation and locating. This effectively meets SLA requirements for new 5G services, including VR/AR.

"iFIT does not require external probes," said Mr. Zang, manager of Beijing Unicom Transport Center. "The service boards of routers can obtain the key performance indicators (KPIs) of real service flows, hop by hop, and the delay precision is high. This is a great breakthrough in the O&M technology of transport networks."

Huang Xinyu, director of Huawei 5G transport solution added: "With the advent of 5G, diversified service types and differentiated SLAs will bring huge challenges to transport networks."

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.

Smart Cities & Smart Highway

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.

Let us know how we can help

We understand the RF wireless world and are ready to help you evaluate your options. Contact us by email, phone or fax and let us know how we can help.

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

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

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

Earlier this year, French mobile operator Orange announced its plans to remedy the situation by launching its 3G Sanza "smeature" (a portmanteau of smart and feature, in case you hadn't noticed) phone, using KaiOS Technology's operating system. It retails at around $US20, depending on the African territory one lives in.

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

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

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

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

Corporation (IDC).

Mazetier points to the fact that these include devices and bundles like the Orange Klif (2015) "where we were the first operator to launch a communication bundle for a fixed price of US$40 with a bundle of voice, data and text included". Orange also launched the Orange Rise 31, a partnership with Google, in 2016.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Biju Nair, president and chief executive, Hyla Mobile

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

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

He opines that "one of the things we will see" is people moving from minutes and SMS to WhatsApp and becoming more data consumers than anything else. "But, of course, there is a credit risk," he warns. "However, it's not about default minimisation, it's actually about revenue maximisation. So, if you think about a credit card company – if its goal was to have 0% debt it would lend to few if any people. What they do is optimise their model to make sure that they're expending just enough credit to maximise their revenue. That's the way the mobile network operators and the banks that are going to be involved in these projects should think about this. If there are more defaults but that means getting more people to use these devices, that's also an advantage. Everyone involved is making the right move by just running the experiment."

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

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

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

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

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

Staying connected: Wi-Fi in the sky

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

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

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

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

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

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

Rudolph Louw, aerospace leader of Africa, Honeywell

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

to do something about it last year.

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

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

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

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

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

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

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

Through the Jet ConneX service, business jet operators experience "industry-leading" connected aircraft capabilities delivering the bandwidth to meet passenger demand for seamless access to business applications, online networks and entertainment options while they fly.

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

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

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

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

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

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

In order to allow communication between the operators and operating system, as well as to facilitate the usage of Vehicle Mount Terminals, MPS knew that a robust wireless network was needed.

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

PHOTO: APM TERMINALS

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

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

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

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

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

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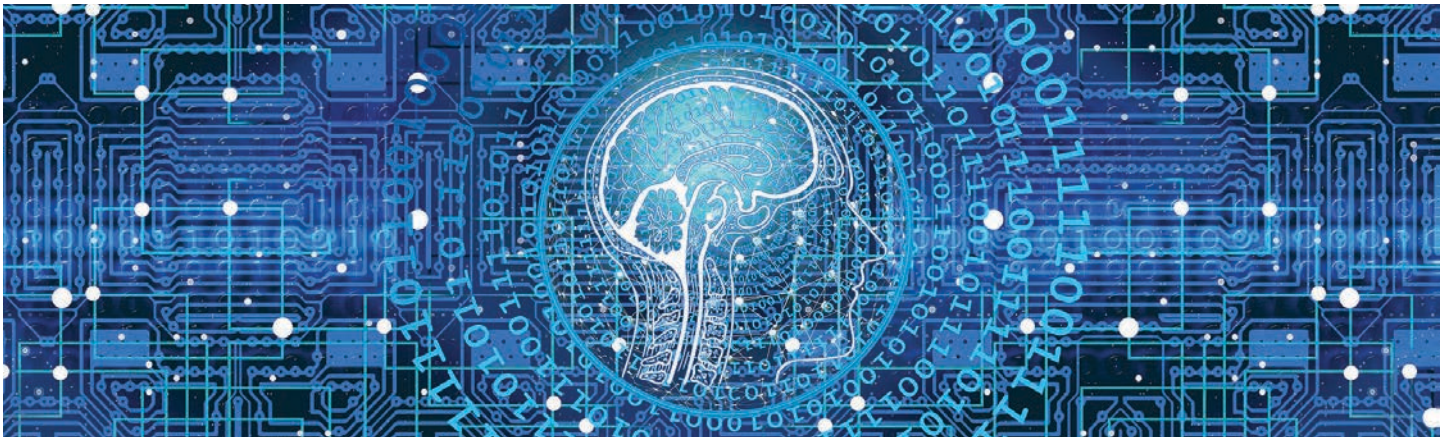


How to monetise an agile data network

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

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

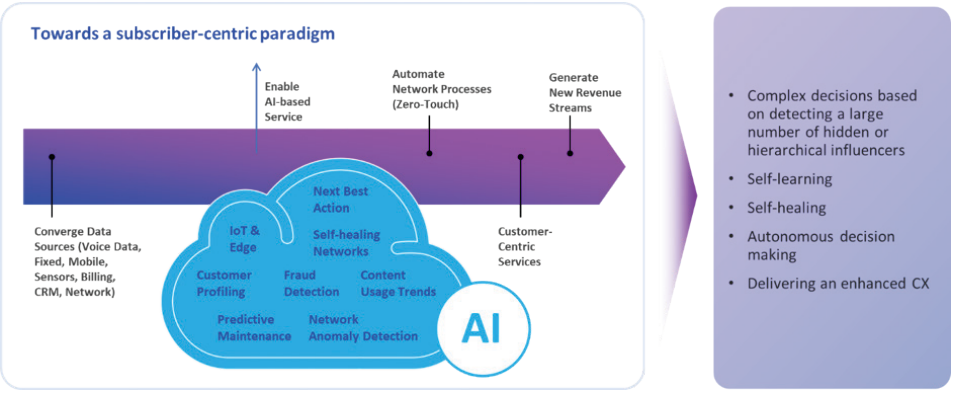
Multi-billion dollar companies, yes, but more importantly, these companies leverage the full potential of data and analytics to offer personised experience to their customers.

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

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

Big data brings big opportunities

This is the beginning of the best era for telcos where every individual has a smart phone and every house has smart devices that constantly keep customers digitally connected. Furthermore, with the advent of 5G mobile internet connectivity, the digital footprint of over 7 billion people across the globe will be no less than a big bang of data explosion. In this given scenario, Network Data Monetisation can play a big role in the growth of the telecom industry. With its vast network outreach, telcos can optimise their opportunity and grab a big chunk in this growth pie.



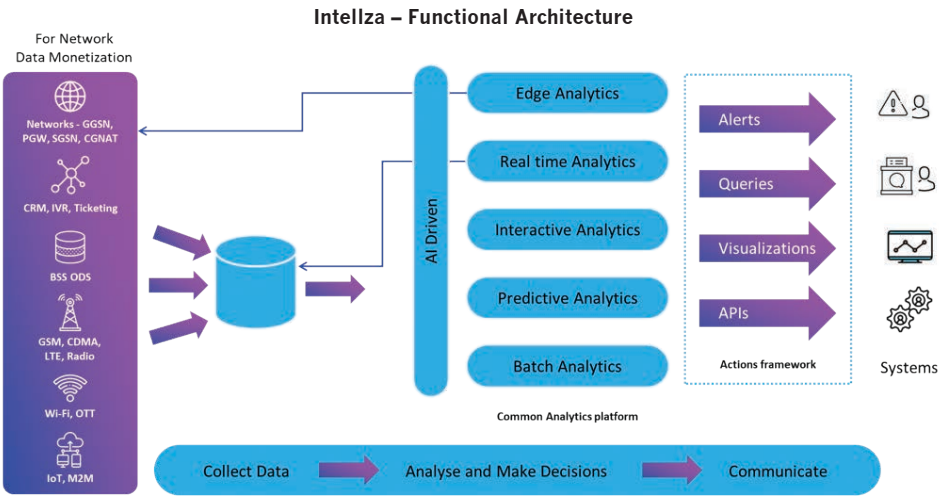
Analytical intelligence-driven Network Data Monetisation is one of the most prominent ways of bringing out the value of data. Network Data Monetisation can be effectively used in optimising a company's business both internally and externally. Telcos can give an in-depth analysis of the operations, services,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

This opens up a huge opportunity for telcos to build partnership models with B2B and B2C segments to provide data analytics services and grow with Network Data Monetisation.

AI-powered business intelligence

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

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



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

Interesting use cases

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

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

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

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

Actionable insights to optimise network experience

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

Network experience scorecard

Network Experience Score measures each subscriber's network experience from a data application and call experience by analysing various parameters such as Remote Administration Tool (RAT) type downgrades, upload, download volumes, abnormal releases, cause for the record closures and call failures as recorded in the Internet Protocol Detail Record (IPDR) and Call Data Record (CDR) logs.

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

Intelligent offload to ensure smart connectivity

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

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

Predictive customer journey to maximise customer engagement

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

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

Intelligent fibre for a hyper-connected world

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

Bring new dynamics to your business

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

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

Discover the opportunity of African telecoms

TowerXchange Meetup Africa is the world's largest event dedicated to passive telecoms infrastructure. The event brings together strategic, investment, operational and innovation leaders from towercos, MNOs and their suppliers for two days of intense discussion and technology showcases. TowerXchange is the leading journal for the telecoms tower world, with researchers covering Africa, the Americas, Europe, the Middle East, Asia and China. The team is deeply embedded in the industry and each event is curated to target the most pressing topics, and bring together key decision makers.

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

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

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Israel holds 5G tender

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

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

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

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

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

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

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

Hong Kong release 5G spectrum auction details

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

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

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

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

"The communication authority will hold auctions of the three frequency bands in succession, starting with the 3.5 GHz band auction to be held on October 14th, 2019, followed by the 4.9 GHz band auction and then the 3.3 GHz band auction," a spokesperson for OFCA said. "Parties interested in acquiring the 5G spectrum may have about two months to prepare their applications and submit them to OFCA on 12 and 13 September 2019. The Government has set the auction reserve prices for the use of spectrum in the 3.3 GHz, 3.5 GHz and 4.9 GHz bands at HK$2 million per MHz, HK$4 million per MHz and HK$3 million per MHz respectively. The actual amount of spectrum utilization fees payable will be determined in the respective auctions."

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

US sanctions 'put telecom firms off Cuba' – government task force

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

Companies from fellow communist country China dominate Cuba's telecom sector, which is something "worth challenging given concerns that the Cuban government potentially obtains its censorship equipment from Chinese Internet infrastructure providers," the report said.

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

"US companies informed the subcommittees they are often deterred from entering the market due to uncertainty caused by frequent changes to US regulations concerning Cuba," the task force said.

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

Huawei to connect remote parts of Canada

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

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

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

The embattled Chinese firm added that some 25 communities in the largely Inuit areas of the Nunavut territory would also benefit from the deployment.

"We strongly believe that everyone should be connected to 4G LTE, no matter where they live in Canada – even in areas where high-speed service may not be economically viable," said Eric Li, president of Huawei Canada.

Most Canadians have access to high-speed internet, but connectivity remains unavailable across some sparsely populated areas in the world's second largest country by land mass.

St. John's in Newfoundland and Labrador, Canada

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

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

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

America Movil posts solid growth

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

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

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

"The operating profits and foreign exchange gains were instrumental in our turning a Mex$14.1 billion net profit in the period," the company said in its earnings statement.

Elsewhere, mobile service revenue grew 5.6% in total, with an 8.3% rise in Mexico, 8.9%, rise in Brazil and a 6.9% increase in the Dominican Republic. There were declines in Peru and Chile, following a reduction in interconnection rates and strong competition. The company's fastest-growing business by revenue was fixed-broadband, increasing 7.7%. However, this was offset by declines in pay-TV which slipped by 4.2%.

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

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

Australia's broadband boom

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

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

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

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

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

Japan looks to restrict foreign ownership

The Japanese government said that high-tech industries will be added to a list of businesses for which foreign ownership of Japanese firms is restricted.

Effective August 1st, the new rule comes in amid heightening pressure from the US in dealing with cyber-security risks and technological transfers involving China.

Japan did not mention specific countries or companies that will be impacted by applying existing foreign ownership restrictions to the IT and telecom industries.

"Based on increasing importance of ensuring cyber security in recent years, we decided to take necessary steps, including addition of integrated circuit manufacturing, from the standpoint of preventing as appropriate a situation that will severely affect Japan's national security," Japanese ministries said in a statement.

The new rule will be applied to 20 sectors in information and communications industries.

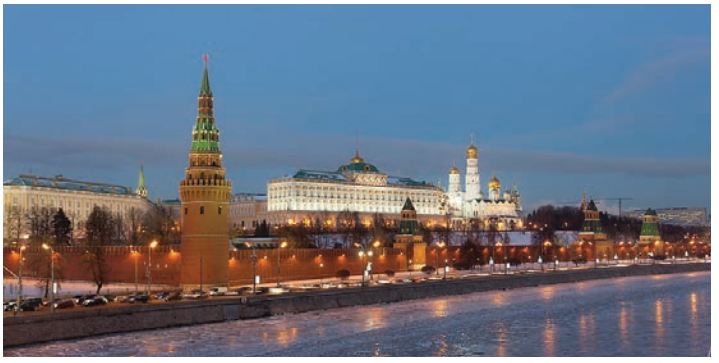
Japan made the announcement on the same day visiting US president Donald Trump and Japanese prime minister Shinzo Abe held talks in Tokyo on trade and other issues.

Russian operator MTS signs 5G deal with Huawei

Russia's largest mobile operator MTS has signed an agreement with Huawei to develop 5G technology as the Chinese tech giant faces mounting pressure from the US.

The 5G deal was one of several cooperation agreements signed after talks between president Vladimir Putin and Chinese president Xi Jinping in Moscow. The Kremlin website lists the deal as a "memorandum of understanding." According to reports, pilot launches of the advanced cellular network technology will be held this year and in 2020.

Headquartered in Russia's capital city, Moscow, MTS also operates in Ukraine, Armenia and Belarus. As of 2017, it had over 106.5 million subscribers in the four countries. In Russia alone it had a market share of 31% with 78.3 million subscribers.



The Kremlin in Moscow

Venezuela targets 4G development

Venezuelan president Nicolás Maduro has invited Russian telecom companies, along with Chinese tech giants Huawei and ZTE, to develop a nationwide 4G telecommunication network in the Bolivarian Republic.

Development of the 4G network system will become a part of the socialist corporation of the telecommunications and postal services sector of Venezuela, he said. However, Maduro did not specify the range of potential investments into the project.

During the president's most recent trip to Russia, Moscow and Caracas reached a preliminary agreement on launching Russia's Global Navigation Satellite System in Venezuela.

"I have ordered to make an investment and, together with China's technologies, Huawei and ZTE technologies and the technologies of Russian companies, bring telecommunications to a new level and make a nationwide 4G network a reality in Venezuela to ensure Venezuela has fast communications, internet, and telephony," President Maduro said in the speech during the country's first Innovation, Development, Science and Technology Fair.

However, the political and economic situation in Venezuela has since deteriorated as the US introduced new sanctions against the Latin American state. Most recently, Washington imposed a strict ban on Venezuela's oil exports, the country's key source of income.

Kerlink and Tata announce partnership for LoRaWAN network deployments

IoT specialist Kerlink and Tata Communications Transformation Services (TCTS) have joined forces to promote the LoRaWAN network deployments globally.

The two companies said they demonstrate to telecom carriers and start-up IoT connectivity providers how LoRa technology is one of the most responsive and reliable protocols for IoT connectivity.

"This is an exciting opportunity for Kerlink and TCTS to combine our deep technological know-how and broad on-the-ground experience in designing and deploying reliable telecommunications networks that are tailored to meet our customers' goals," said Robert Clapham, Kerlink's deputy chief executive officer. "Kerlink's high-performance equipment and network design and management offerings, which have been validated in challenging environments around the world, will be key components of this joint offer with TCTS."

Spain deports 94 Taiwanese suspects to Beijing for telecom fraud offences

Spain has deported 94 Taiwanese to Beijing as part of a joint operation against telecom fraud launched three-years-ago.

The suspects were arrested in December 2016 in joint raids, dubbed "Operation Great Wall", by Spanish and Chinese police.

Spain's handling of the case and approval of the extradition in early 2017 drew heavy criticism from Taiwan. In Taipei, the foreign ministry "expressed deep concern and strong regret" over the deportation of the suspects to China

It called on the Spanish government to "uphold the spirit of humaneness and the principles of human rights", and to work with Taiwan in the fight against cross-border crime and to properly handle this type of case.

A Spanish court agreed to the extradition to China of all 237 suspects picked up in the raids. Spain has so far sent 225 suspects to China, including 218 from Taiwan.

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

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

All EU members are obliged to have an operational 5G network in at least one city by the close of 2020. However, Poland first has to raise the acceptable level for radiation emitted from the highly efficient base stations that must be built for 5G.

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

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

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

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

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

Síminn and Ericsson to target 5G and IoT

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

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

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

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

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

"We will continue to provide our customers with access to world-class network infrastructure and the services needed to be competitive now and in the future," said Orri Hauksson, chief executive officer at Síminn. "Our customers are used to Síminn enabling their lives through our networks since 1906, we take that responsibility seriously. We are anxious to make the jump towards 5G with Ericsson's technology like we have for over 100 years."

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

Jenny Lindqvist, head of Ericsson, northern and central Europe
PHOTO: ERICSSON

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

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

Under the terms of the deal, the EIB will support 50% of the costs of the new electricity link. The Crete interconnector will be built between the Malea peninsula in the Peloponnese and the island's Kissamos Bay. It will be up to 1,000 metres below sea level and will provide telecom and internet services. Expected to become operational in 2020, the aim of the new transmission link is to reduce carbon emissions.

The new interconnector is expected to supply up to 40% of electricity used on Crete and to enable access to renewable energy generated elsewhere in Greece and minimise the risk of electricity shortages during peak periods and high seasonal demand.

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

Roussev in for Telekom Romania

Bulgarian businessman Spas Roussev has emerged as the favourite to take over the mobile division of Telekom Romania, the local subsidiary of German group Deutsche Telekom.

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

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

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

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

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

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

Telekom Albania sold

Bulgaria's Albania Telecom Invest has completed the acquisition of Telekom Albania from Greece's OTE Group, for a total gross equity consideration of €50m ($57.2m). Albania Telecom Invest, which acquired OTE Group's entire 99.757% stake, is owned by Bulgarian businessman Spas Roussev and Albanian-Bulgarian investor Elvin Guri. "It is a strategic decision, in the context of OTE Group's redefined priorities and growth plans, in order to create value for all shareholders and support sustainable development," OTE chairman and chief executive officer Michael Tsamaz said when the group agreed to sell its stake in Telekom Albania back in January this year.

Frequency up for sale

Romania said it plans to start selling the frequency spectrum needed for 5G wireless networks in Q4 2019. The bidding will be open to all, including companies using equipment from Huawei, said communications minister Alexandru Petrescu. Finance minister Eugen Teodorovici added that the 5G auction could contribute to public finances this year or next, depending on how fast the process is completed.

Huawei sales nosedive

Huawei founder Ren Zhengfei said international sales of the Chinese telecom firm's handsets have dropped 40% in the past month as a US-led backlash against the embattled firm intensifies. Speaking at the firm's headquarters, he also said the company would slash production by $30bn (£23.9bn). In May, the Trump administration put Huawei on a list of companies that American firms cannot trade with unless they have a licence. It argued that the world's largest maker of telecoms equipment and the second biggest smartphone maker poses a security risk.

Brazil starts 5G testing

Telecom Italia's Brazilian subsidiary TIM has started the first 5G tests in South America's largest nation ahead of commercial launch of the technology forecast for 2021.

Trials on the 3.5 GHz frequency in Florianópolis, the capital of southern Brazil's Santa Catarina state, are being executed with Chinese tech giant Huawei and CERTI foundation, a public research and development body.

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The firm said it planned to develop a reference centre for 5G, with activity including trials related to smart cities, healthcare and agriculture.

"TIM wants to be a 5G pioneer and leader, both in Brazil and Italy," said Pietro Labriola, chief executive at TIM Brasil. "Our goal is to repeat the path of success of 4G and generate new solutions that improve the lives of our customers and boost the technological development in the country."

He also said that government investment, combined with the simplification of procedures for the installation of antennas and fibre, would be "enabling elements" that could position 5G as a vehicle to drive competitiveness and growth in the country.

The Brazilian government plans to auction the 5G spectrum in March 2020.

Mislatel rebrands after gaining licence

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

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

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

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

Duterte has called on Dito to mount a challenge to two dominant rivals in PLDT and Globe Telecom.

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

Duterte first announced his objective to introduce a new player in 2017 and Mislatel was chosen by the National Telecommunications Commission (NTC) in November 2018.

Facebook enters cryptocurrency arena

US social media giant Facebook has unveiled plans to launch a new cryptocurrency called Libra.

Set to launch in 2020, Facebook said users would be able to make payments with the currency via its own apps, such as messaging service WhatsApp.

It added that firms such as Uber and Visa were also likely to follow suit and recognise the digital currency as legal tender.

However, concerns have been raised about how people's money and data will be protected, as well as over the potential volatility of the currency.

Libra is set to launch in 2020

Facebook said Libra would be independently-managed and backed by real assets, and that paying with it would be as straightforward as texting.

It is the latest foray by a tech giant into the payments sector, after Google Pay, Apple Pay and Samsung Pay – although none of those services are currently related to cryptocurrency.

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