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

NORTHERN AFRICAN WIRELESS COMMUNICATIONS

DECEMBER 2020/JANUARY 2021 Volume 19 Number 5

- Is Covid-19 a blessing in disguise for mobile money?
- Operator focus: what MNOs are doing for communities
- Empowering businesses and subcribers

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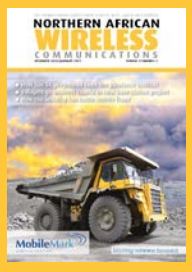

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CONTENTS

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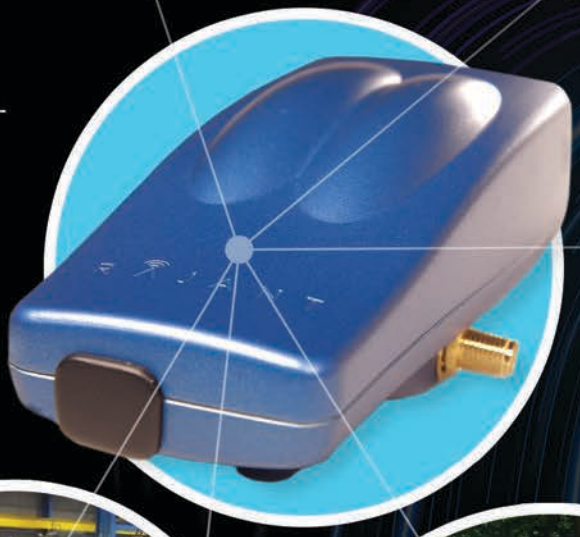

*IF IT'S **MOVING**, IT'S RAJANT.*

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Kenya: Alphabet's Loon deflates

Alphabet's Loon, the stratospheric balloon internet access service in Kenya is to return to earth.

The project is shutting down across the globe after nine years of exploration and final pilot.

"So we've made the difficult decision to close down Loon. In the coming months, we'll begin winding down operations and it will no longer be an Other Bet (Google's innovative projects) within Alphabet," said Astro Teller, lead at the Google X lab where the project was born in 2011. "Sadly, despite the team's ground-breaking technical achievements over the last nine years - doing many things previously thought impossible, like precisely navigating balloons in the stratosphere, creating a mesh network in the sky, or developing balloons that can withstand the harsh conditions of the stratosphere for more than a year - the road to commercial viability has proven much longer and riskier than hoped."

Alastair Westgarth, chairman and chief executive officer of Loon, added: "While we have found a number of willing partners along the way, we haven't found a way to cut costs enough to create a long-term sustainable business. Developing radical new technology is inherently risky.

The rationale was to bring internet access to the next billion in such regions with internet balloons in the stratosphere that would emit internet signals over a wide area

The rationale was to bring internet access to the next billion in such regions with internet balloons in the stratosphere that would emit internet signals over a wide area.

In Kenya, the company was given the green light to operate in Kenyan airspace at the onset of the Covid-19 induced restrictions. Telkom Kenya was selected to partner with Loon locally.

"It was very exciting, therefore, to partner with like-minded pioneers in the adoption and usage of innovative technologies such as Loon, with the aim of filling in the internet access gaps in areas that were difficult to service," said Mugo Kibati, CEO at Telkom Kenya.

Balloons were launched over server countries including New Zealand, Peru and Puerto Rico.

ZTE completes Mauritania fibre network construction

Chinese tech giant ZTE has completed construction of Mauritania's national fibre optic network.

The whole of the northwest African nation is now crossed by optical fibre, which was deployed as part of the regional communications infrastructure program in west Africa, funded by the World Bank. It was introduced to help accelerate the country's digital transformation.

The 1,760 km long high-speed telecommunications infrastructure is a backbone made up of urban loops and an international network interconnection. In terms of international network interconnection, Nouakchott, the capital and largest city in Mauritania, serves as the landing point for the ACE submarine cable system.

"The construction of the first national network in Mauritania will play an essential role in the development of communication infrastructure throughout the country, and even in Africa," said Li Jianhua, the general manager of the Mauritania national fibre optic project at ZTE.

Ooredoo hires Ericsson to modernise network for 5G

Ooredoo Group has hired Ericsson to modernise the operator's networks across its global portfolio, including its operations in Algeria and Tunisia.

In a statement, Ericsson said the five-year-long partnership will let Ooredoo use its 5G radio, core and transport products and services, a move it said would open the door for end-to-end 5G support "to digitally transform and modernise" Ooredoo's mobile networks.

This agreement also includes Ericsson's cloud infrastructure and cloud communication offerings.

Sheikh Mohammed Bin Abdulla Al Thani, deputy managing director of Ooredoo Group, said that the agreement with Ericsson will allow the company "to provide the latest digital solutions enabling communities to enjoy the best of the Internet, including by connecting more remote areas, supporting startups digitally and providing immersive experiences for sports fans at upcoming mega sports events ".

The Swedish gear-maker said the timeframe for new services to appear on the market will be "significantly" shortened following the tie-up, while also enhancing Ooredoo's network performance.

The agreement also includes Ericsson's cloud infrastructure and cloud communication offerings

This deal builds on previous collaboration between the pair, as Ericsson's Radio System is already live in several Ooredoo operations, including for Qatar's nationwide 5G coverage.

The agreement also covers the group's units in Qatar, Indonesia, Iraq, Kuwait, Oman, Palestine, Tunisia, Myanmar and Maldives.

Nigeria 'confident' of meeting new SIM NIN deadline

Nigeria is confident of meeting the newly-imposed February 9 deadline for the completion of the NIN (National Identity Number)-SIM card integration project, according to the country's officials.

Ikechukwu Adinde, director, public affairs, at the Nigerian Communications Commission (NCC) told local media outlets that 47.8 million NINs have been collected by mobile operators.

"At an average of three to four SIMs per subscriber, this means many millions will be linked up before the deadline in February 2021," Adinde said in a statement.

Officials said the NIN-SIM linkage project is looking positive, however the figures are not broken down by MNO.

In early January 2021, the NCC issued a statement, responding to speculation of the disconnection of lines. "Most of these publications are based on the erroneous assumption that for every network or SIM connection, there is one unique human subscriber," it said. "However, with the advent of social media and app-driven digital environment, network subscription went beyond human subscribers to include machines like PoS, routers, Wi-Fi devices, electricity meters, CCTV, tracking devices etc."

Officials have also commented on increasing the number of people at registration centres, for which authorities have been criticised for exposing them to Covid-19.

Isa Ali Pantami, Nigeria's minister of communications and digital economy, blamed the subscribers for "visiting in huge crowds without an invitation".

Kenya: militants destroy mast

Kenyan police said Al-Shabab militants destroyed a telecommunications mast in Elele area, Mandera County, along the Somalia border.

The militants used bombs to destroy the only mast in the area in mid-December, affecting communication for a number of towns and villages. There were also casualties, the police said.

Al-Shabab militants are known to destroy telecom masts to disrupt police response and communication in the area before they inflict harm on the locals.

The extremists, believed to have crossed from Somalia, have also been targeting schools and residential houses rented by communities that are not native to the volatile northeastern Kenyan counties of Garissa, Mandera and Wajir.

The attack came days after newly-built police offices and houses were destroyed in an Al-Shabab explosion at Borehole 11 area of Mandera South constituency, Mandera County.

In January 2020, Kenyan military forces killed two attackers as they tried to blow up a telecom tower.

"They attempted to destroy the telecommunication of Safaricom mast around that place. [An] officer who was on patrol caught up with them, shot and killed two of them, and we recovered two AK-47 rifles and some IEDs" said police spokesman Charles Owino.

Egyptian trio secure 2,600MHz spectrum

Etisalat Misr, Telecom Egypt and Vodafone Egypt are braced to receive half of the acquired spectrum in the 2,600MHz band within the next three months, as the trio continue with plans to upgrade connectivity services.

According to Egyptian media, an unnamed government official said the operators will receive the second block of spectrum within a year from Egypt's National Telecommunications Regulatory Authority (NTRA).

Telecom Egypt and Vodafone applied to acquire the 2,600MHz TDD spectrum in November 2002, with the former stating a ten-year licence will aid in modernising infrastructure.

The NTRA revealed Vodafone Egypt and Telecom Egypt spent a combined US$1.17bn for the airwaves.

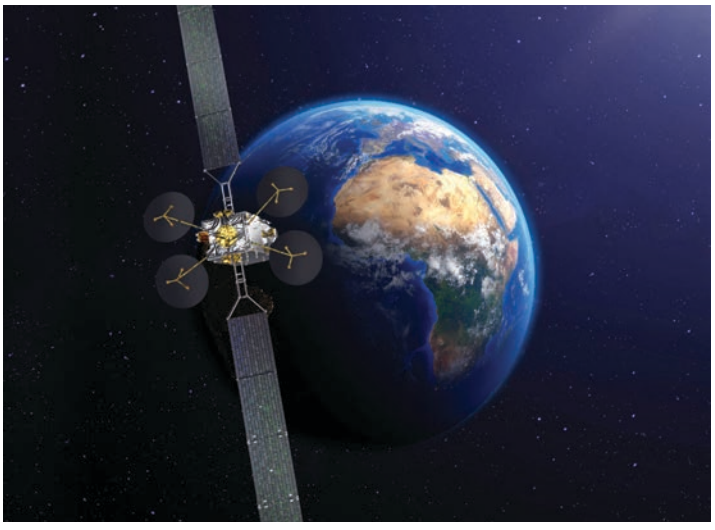
Etisalat Misr reportedly outbid Orange Egypt at auction to claim a 2,600MHz spectrum licence with 20MHz bandwidth.

Eutelsat's konnect provides connectivity services to La Poste in Côte d'Ivoire

Eutelsat Communications' konnect broadband service has penned a framework agreement with its distribution partner InterSat to provide connectivity services to La Poste (the post office network) in Côte d'Ivoire.

Under the terms of the deal, 170 post offices will be connected and equipped with konnect Wi-Fi hotspots in white zones, enabling the Post Office to offer broadband solutions to its local customers. Its scope could be expanded to 3,000 parcel-points ('Point Relais') throughout the country.

Jeoffrey Woods, CEO of InterSat said this framework project comes in response to the desire of the Ivorian government, to deliver "high-quality digital services throughout the country" to meet the operational needs of its 170 postal offices, but also to ensure the continued roll-out of "ubiquitous" services to populations living in white areas. "Reliable and affordable broadband access has now become a reality"," he added.



Under the terms of the deal, 170 post offices will be connected and equipped with konnect Wi-Fi hotspots in white zones, enabling the Post Office to offer broadband solutions to its local customers

The roll-out of the service started in January 2021 and is expected to continue over a six-month period. Isaac Gnamba Yao, CEO of La Poste, Côte d'Ivoire said the agreement, which forms part of a public-private partnership, "is one more step" by La Poste towards the achievement of its ambition to become the "Maison du Citoyen et des Entreprises, Coursier de l'Etat (House of Citizens and Businesses, State Courier)."

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Burkinabe parliament recommends law amendment

The Burkinabe Parliamentary Committee of Investigation on mobile phone system made 33 recommendations to the government, including an amendment to the law on the general regulation of electronic communications networks and services.

This law review mainly focuses on maximising investment so that underserved areas are covered. Stricter sanctions against operators that violate their specifications are also planned. The recommendations were made December 17.

The Commission presented to the National Assembly the conclusions of its three-month investigation into the national telecom market. Several weaknesses are observed in several areas (notably territorial coverage, the quality of service offered by Orange, Telmob, and Telecel, consumer satisfaction and public safety).

Given the country's current security situation, marked by jihadist attacks, the commission also recommended an amendment to the law governing intelligence so that it better integrates the contribution of cell phone companies to the country's security.

The president of the National Assembly, Alassane Bala Sakandé also expressed a desire to see Burkina Faso acquire software to control telecom traffic.

MTN launches 4.5G network in Abidjan

The people of Abidjan can now access to 4.5G technology deployed by MTN.

According to the operator, 4.5G is faster with a minimum browsing speed of 200 Mb/s, enabling customers to download a 15 min video in 7 seconds instead of 20 to 30 seconds with 4G.

Hyacinthe Séka, the technical director of MTN Côte d'Ivoire, said the wireless network that provides 4.5G is being deployed initially in the economic capital, where demand for Internet is higher. Extension will later on take place.

Djibril Ouattara, the MTN's managing director, said that the 4.5G launch was financed thanks to part of the CFA40 billion invested by the company on its telecom network during this year.

The launch ceremony was held in December at a venue in Marcory, a commune of Abidjan.

Meanwhile, MTN Côte d'Ivoire recently launched the third edition of its "E-waste" campaign in the capital. For three months, the mobile phone operator will sensitise companies and individuals to the need to collect and recycle electrical and electronic waste.

The operator will distribute boxes for the collection of E-waste to companies in the country. Individuals will be able to deposit their waste in boxes that will be installed in agencies and shopping centres. Expected waste includes household appliances (small devices), fixed or mobile phones, tablets, chargers or telephone batteries.

Aeris and Bboxx deliver clean energy to over one million people in Africa

IoT specialist Aeris has helped Bboxx, a next generation utility which manufactures, distributes and finances decentralised solar powered systems in the developing world deliver clean energy to over one million African citizens, courtesy of its Aeris Fusion IoT Network.

Bboxx's core products are a range of solar home systems that enable both individuals and small businesses to power appliances—from lights and mobile phones to refrigerators and computers. It installs the Aeris global subscriber identity module (SIM) at the point of manufacture, reducing both supply chain costs and deployment time. Using Aeris' single global access point name (APN), the Bboxx solar system can also be deployed anywhere in the world, even in the most remote locations, on a simple plug-and-play basis, without any requirement to configure local network settings.

Furthermore, the collaboration between Aeris and Bboxx means the latter's devices have reliable IoT connectivity no matter where in the world they are deployed, allowing products to be remotely monitored and expediting deployment timeframes.

"Aeris' high-quality service and IoT expertise have assisted Bboxx to deliver clean energy solutions to communities and households in eleven countries in Africa with minimal deployment time," said Christopher Baker-Brian, co-founder and managing director at Bboxx. "By partnering with companies like Aeris, we are making reliable and clean energy more accessible as we continue our mission to unlock potential and transform lives."

Bboxx's core products are a range of solar home systems that enable both individuals and small businesses to power appliances—from lights and mobile phones to refrigerators and computers

Paul Tarsey, IoT solutions consultant, Aeris, added: "Aeris' ability to offer high-quality IoT connectivity at the most optimised total cost of ownership ensures that Bboxx's solar systems are operational and reliable no matter where they are deployed. We look forward to continuing to help assist Bboxx to expand their capabilities and deliver clean energy to people throughout the world."

Since partnering with Aeris in 2017, Bboxx has utilised Aeris' multi-carrier connectivity and the continued expansion of Bboxx in Africa is also assisted by Aeris' global SIM, which is deployed at the point of manufacture, enabling Bboxx to reduce its supply chain costs and solution deployment time.

Telecom partners include Safaricom, MTN Rwanda, Tigo, Airtel Congo and MoovTogo.

Uganda internet restored but social media still blocked

Ugandans are celebrating the return of internet services after a shutdown was imposed ahead of the election, but social media platforms remain blocked and are only accessible using a virtual private network (VPN).

Bobi Wine, presidential candidate for the opposition National Unity Platform, alleged the poll was marred by fraud. Party's spokesperson Joel Senyonyi accused the incumbent president of shutting down the internet to prevent them from sharing evidence of fraud.

After more than a month of targeted restrictions, Ugandan authorities, in an unprecedented move, shut down the internet in the country hours to the January 14 polls.

President Yoweri Museveni, who won an unprecedented sixth term in office, had previously accused the platforms of being biased towards his campaign.

A letter from Uganda Communications Commission (UCC), the regulator of the communications sector in the country, ordered the shutdown until further notice started circulating on social media. By this time, many users in the East African country could no longer access the internet although the complete shutdown was effected at 7pm.

Internet shutdowns have become a growing modus operandi by governments around the world to control the sharing of information particularly in developing countries and increasingly led in African countries

"This suspension should take effect at 7pm this day of 13th January 2021 and continue until otherwise directed," the letter signed by Irene Kaggwa Sewankambo, the acting executive director of UCC reads in part.

The country's two largest mobile networks MTN Uganda and Airtel Uganda account for the majority of the country's 20 million internet users. It means ordinary Ugandan voters, opposition party operatives, and election observers will have fewer means of communications as the polls open on Thursday (Jan. 14).

Internet shutdowns have become a growing modus operandi by governments around the world to control the sharing of information particularly in developing countries and increasingly led in African countries. There were 35 incidents of internet shutdowns lasting longer than a week last year. Chad, Ethiopia, DR Congo and Zimbabwe are among the 19 countries that fully or partially shuttered internet access for more than seven days.

Energy provider secures $35m start-up funding

Inspired Evolution, the investment advisory firm specialising in clean and renewable energy, led a US$35m equity investment by its Evolution II Fund and co-investor, Norfund and Sagemcom in Escotel, an energy services company working in sub-Saharan Africa.

Headquartered in Mauritius, Escotel was set up to provide energy services to mobile tower owners and operators, owning and operating decentralised renewable energy infrastructure spanning the continent.

Escotel will initially supply, install, operate and maintain decentralised solar and storage hybrid power systems for a portfolio of around 900 telecom sites in Sierra Leone, Liberia and over time the Democratic Republic of Congo, owned by subsidiaries of France-based MNO Orange.

Evolution II has ringfenced US$20m alongside US$10m from Norfund and US$5m from Sagemcom Energy and Telecom, which will also act as an equipment supplier, EPC contractor and O&M provider to Escotel.

Gender inequality fuelled by cheaper devices, says report

Budget mobile phones and the lack of payment interoperability exclude more women than men in Africa with regards accessing to finance systems, despite widespread payment technology, according to a new report.

Payment system design and the financial inclusion gender gap, research sponsored by the Bill & Melinda Gates Foundation, highlights a number of reasons that relegate women to the bottom of financial inclusion.

"Women are typically underserved and have more to gain from new providers and new services that target a wider range of client segments," it said. "In Kenya, where the market is more developed, we were able to assess various interoperable services such as M-Shwari and M-Shwari locked accounts in focus groups."

The report added: "In Côte d'Ivoire, a less developed DFS market with only rudimentary interoperability, women reported primarily moving money between networks by withdrawing and depositing cash. This cost them significantly in time and money -costs they would not face if interoperability were more prevalent in that market."

Furthermore, the report found women are 20% more likely than men to own smartphones in low- and middle-income countries.

"We recommend updating the principles to support low-end devices with a principle that states: All primary functions should be accessible to users with inexpensive basic/feature phones - typically enabled through USSD interfaces on such devices," the report recommended.

Cameroon pens deal with CAMIX on IXP rollout

Cameroon has retained the services of tech firm Cameroon Internet Exchange Point (CAMIX) to roll out internet exchange points across the nation, beginning with its two largest cities – Yaounde and Douala.

The minister of posts and telecommunications Minette Libom Li Likeng handed over an exploitation licence to CAMIX executives, led by company president Olivier Leloustre.

Under the terms of the deal, CAMIX will run the IXPs which will be lodged at the CAMPOST datacentre in Yaounde.

CAMIX officials said Google's Edge Network will soon be deployed, followed by those of Netflix and Cloudflare, which they believe will enable users to save dozens of gigabytes. They also announced that they are also in talks with Amazon and Facebook.

According to Leloustre, once the IXPs begin functioning at their optimum, they will ease local internet traffic exchange, reduce cost, and improve internet quality and access by optimising latency and bandwidth.

Minister Likeng said the IXP roll-out reflects the country' progress towards digital transformation and progress with efforts to lead the Central African region's telecom industry.

The minister added that the government is eager to increase access to broadband connection for end-users and corporate users by extending the national fibre optic backbone from 20,000km to 25,000km in the next few years.

Under the terms of the deal, CAMIX will run the IXPs which will be lodged at the CAMPOST datacentre in Yaounde

Orange announces Djoliba fibre network launch

French giant Orange is set to officially announce the launch of Djoliba, described by the company as 'the first pan-African fibre optic network'.

The company released a brief statement confirming a media conference, scheduled for 10 November and involving Orange chairman and CEO Stéphane Richard, Alioune Ndiaye, CEO Orange Middle East and Africa; Jérôme Barrre, CEO Orange Wholesale & International Networks; Mamadou Bamba, CEO for Orange Côte d'Ivoire, as well as Sékou Drame, CEO for Sonatel Group.

According to some media outlets, the new west African backbone network will connect several cities including Dakar, Bamako, Abidjan, Accra and Lagos.

Orange also posted some details about the backbone via Twitter in June.

The company is present in 18 countries in Africa and the Middle East and claims to have 124 million customers as at 30 June 2020.

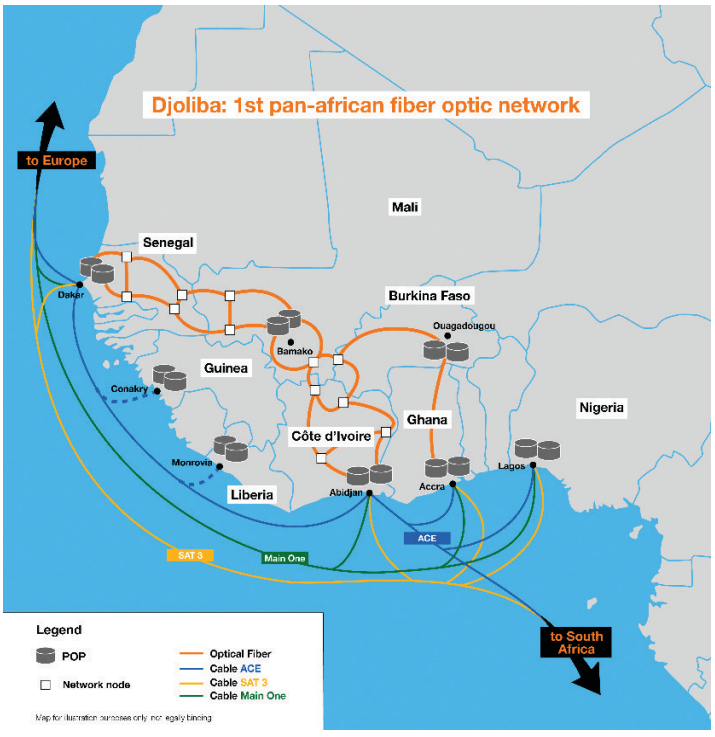
Recently Orange reaffirmed its support of the One Africa Network (OAN) project, announcing the creation of two new international voice Points of Presence (PoP) in Lagos.

Ndiaye said: "We are working hard to promote the emergence of a dynamic digital society, a key driver of African development. From this year, Orange will endeavour to keep African traffic in Africa."

In September, during the GSMA's Thrive Africa 2020 event, Chairman and CEO Richard raised the issue of the usage divide or residents who are covered by mobile networks but who do not access the internet.

He said 520 million people in Africa fall into this category, mainly because of the high cost of smart devices and mobile services, and that content made available through these devices is not always relevant and/or users do not have the skill sets to take advantage of the technology.

"On a global level 7% of world's population lacks mobile broadband coverage, less than six hundred million people, whereas in SSA, the gap is currently almost 30% of the population. The lack of internet excludes individuals from opportunities to overcome the social and economic impact of the current crisis. It also limits the ability of governments to effectively manage the pandemic and its economic fallout. If we don't take action now, we run the risk of reinforcing existing inequalities in the digital world and further marginalising vulnerable people."



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Egyptian president airs 'TIBA-1' plans

Egyptian president Abdel Fattah al-Sisi called to ensure that the 'TIBA-1' satellite be "utilised with the utmost optimisation for governmental communications" within the administrative body and the New Administrative Capital.

Local media reported that, the leader met with minister of telecommunication Amro Talaat and the executive chief of Egyptian Space Agency Mohammed Afifi to discuss future usage of the satellite, citing the president's spokesperson Bassam Radi.

Talaat presented developments on the unified governmental network to support fast data transmission.

The project will help promote governmental services and comes as part of the state's strategic digitisation project.

Based on the Eurostar E3000 satellite platform, TIBA-1 was developed by French companies Airbus and Thales Alenia Space for the Egyptian government.

This communications spacecraft will weigh approximately 5,640 kg at lift-off and was designed for a service life exceeding 15 years.

The satellite aims to promote development by providing telecommunications infrastructure and broadband internet to remote and isolated areas, support development projects in these areas, as well as bridging the digital gap between urban and rural places.

China successfully launches Tiantong 1-03

China successfully launched a new mobile communications satellite on the S-band frequency, covering Africa and providing stable and reliable mobile communication services such as voice, messaging and data.

The satellite was launched into space from the Xichang Satellite Launch Centre in southwest China's Sichuan Province, on a Long March-3B carrier rocket.

At an altitude of 22,236 miles (35,786km), the satellite will orbit at a speed which keeps it fixed over a point on the Earth below, making such orbits useful for providing stable communications services.

The new satellite will network with the Tiantong 1-01 and Tiantong 1-02 satellites to improve resource efficiency and service capabilities.

All three are operated by China SatCom, a specialist in communication and broadcasting services.

Africa's telecom operators are currently facing a growing demand for quality connectivity.

Demand for the internet is growing as remote areas, poorly covered by mobile telephone operators, represent market niches that are still largely untapped.

This launch will make it easier to reach them, giving telecom operators a way to navigate the obstacle of network expansion in areas that often prove tricky to access.

It also means guaranteed new revenues for telecom operators and internet service providers in Africa, which rely on the Tiantong 1-03 satellite to extend their network coverage to new parts of the continent.

The three Tiantong 1 satellites will establish a mobile network with ground facilities to provide all-weather, all-time, stable and reliable mobile communications services such as voice, short message and data to users. They will cover China and its surrounding areas, the Middle East, Africa and other regions.

Launched in January 2020, Tiantong 1-03 was developed and built by the Chinese Academy of Space Technology.

Talking satellite

Martin Jarrold, chief of international programme development, GVF

Engaging with the industry's global dialogues

With the conclusion on 3 December of the GVF-Satellite Evolution 2020 Webinar Series we are now planning the 2021 schedule. Whilst 2021 may at some point see a return to the joys of the visa applications, airport security queues, busy departure lounges, and boarding delays associated with international travel, I doubt a full return to the world as it was pre-pandemic: busy schedules of international travel to attend exhibitions, contribute to meetings, and address conferences. Consequent on the experience of lockdown, social distancing and WFH, and the realities of restrictions on moving around the globe introduced by governments responding to the pandemic, has come the realisation of effective alternatives to travel that employ cyberspace to convey ideas and enable exchanges of knowledge. This will mean a permanently different world when it comes to the means and platforms we use to collaborate and cooperate, debate and discuss, negotiate and forge deals.

Producing GVF's Webinar Series has been an interesting experience and a rewardingly successful response to this different world. With 15 events in the main 2020 webinar series, and a further number produced for embedding within partner online events, it was a notable year. A notable end to the year too, with the finale exploring NewSpace, with a panel of speakers moderated by one of the big names in space and satellite, the Founding President of the Society of Satellite Professionals International, Dean Emeritus at the International Space University, and member of the Executive Board of the International Association for the Advancement of Space Safety – Dr Joseph N. Pelton, https://gvf.org/webinar/building-newspace-enterprise-application-in-a-rapid-growth-ecosystem/.

It is important to note that the various thematic dialogues we created and produced through 2020 can still be experienced through the webinar archive on the GVF's YouTube channel and accessed through the GVF website at https://gvf.org/webinars/. Another example of a key, future-looking dialogue took place on 24 September, bringing the United Nations Environment Programme Digital Transformation Task Force into discussion about Global Transitions: Digital Economy, Digital Infrastructure, Connected Communities, Digital Planet, https://gvf.org/webinar/global-transitions-digital-economy-digital-infrastructure-connected-communities-digital-planet/.

Over 8,000 individuals from at least 134 countries have, so far, watched the webinars, with approximately half this figure watching "live" and half viewing the recordings. Thematically wide-ranging, here is a selective list of some of our 2020 webinar sessions. If you did not have the chance to view the webinars "live", you can avoid missing out by using the specific links provided. Alternatively, go to the webinars home page at https://gvf.org/webinars/. Here you will also see details of our first webinar for 2021,Beyond 2020: New Applications, New Growth, taking place on 28 January.

Airborne Again? The Future Post-Pandemic Mobility Horizon
Global Eagle; Intelsat; PJT Partners; and KenCast. Moderated by Access Partnership.
https://gvf.org/webinar/airborne-again-the-future-post-pandemic-mobility-horizon/

Humanitarian Assistance & Disaster Response: The Evolving Role of Satellites in Disaster Response
Eutelsat; Inmarsat; Thuraya; and Knight Sky. Moderated by GVF.
https://gvf.org/webinar/humanitarian-assistance-disaster-response-the-evolving-role-of-satellites-in-disaster-response/

The Regional Satellite Operators' Voice
ABS; Arabsat; and Yahsat. Moderated by Euroconsult.
https://gvf.org/webinar/the-regional-satellite-operators-voice/

A Regional Perspective on C-Band – The Next Battleground?
Intelsat; TV Globo; Sentech; and Hispasat. Moderated by ANATEL.
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Ethio Telecom nets 12% rise in H1

Ethio Telecom saw a 12% rise in first-half revenue to end-December to US$650m, the firm reported. The operator said mobile voice services contributed 49% of the revenue and data services some 26%. Ethio plans to launch mobile money services soon but has yet to give a timeframe.

In June 2020, regulator the Ethiopian Communications Authority (ECA) said it had received 12 bids for two telecom licences the government plans to award to multinational companies.

However, it has not given a deadline for when it will award the licences. Ethiopia's telecoms industry is considered the big prize in a push to liberalise the economy as a protected market which serves more than 110 million people.

The government said last year it will retain a 55% stake in the state-run Ethio Telecom, with 40% going to international companies and the remainder to local investors. Meanwhile, Ethio has hired KPMG to determine its economic value ahead of a part-privatisation, while the Ministry of Finance has hired Deloitte Consulting as its own adviser.

Ethio Telecom said mobile voice services contributed 49% of the revenue and data services some 26%

Airtel Africa secures licence

Airtel Africa has been issued a national telecom operator licence in Uganda after paying US$74.6m through its subsidiary Airtel Uganda.

Following a period of negotiation and transition to a new licensing regime, the new licence will commence on July 1 and be valid for 20 years.

"Airtel Uganda will retain all its current spectrum subject to the law and terms of assignment," the group said. "The scope of services will be the provision of basic telecommunication services, infrastructure services, and value-added telecommunication services. In addition, Airtel Uganda commits to achieving coverage of 90% of the geographical boundary of Uganda within five years of the effective date of the licence - with a minimum obligation of providing voice and data services."

Internet and data provider Seacom reveals changes

Claes Segelberg has quit his post as chief technical officer (CTO) at internet and data transmission provider Seacom, the company confirmed.

In a statement, the firm said Prenesh Padayachee, former CTO at internet solutions and former chief sales and marketing officer at Telkom Openserve, will officially take over as Seacom Group chief digital officer (CDO) effective January 4.

"Seacom is heading into a new future of investment and growth, focusing on the rapidly expanding corporate segments in our key markets," Segelberg said. "This requires fresh ideas and new skills that will take Seacom from its current strengths into its future expansion and development."

In addition to the CTO's responsibilities, Padayachee will also be absorbing the chief information officer role, resulting in new title of CDO. "Claes has been a true asset to the Seacom team, playing a pivotal role in shaping our organisation into the industry leader it is today," added Byron Clatterbuck, the outgoing chief executive officer (CEO). "We wish him the very best with his future endeavours and are grateful that he will be staying with us until the end of March 2021 to ensure a seamless handover into the capable hands of Prenesh."

Incoming Group CEO Oliver Fortuin added: "We know that Prenesh will continue to lead the team professionally and uphold the high standards our customers have come to expect from Seacom. This transition marks the start of exciting changes and new beginnings for our group. Thank you for supporting me, Claes, Prenesh, and the rest of the executive team as we make this necessary transition."

Liquid appoints Abu as new CEO

Liquid Telecom has appointed Wole Abu as chief executive officer (CEO) for Liquid Telecom Nigeria effective January 2021. Prior to joining the pan-African firm, he was the CEO of Pan African Towers (PAT) and prior to that, he served as the vice president of sales at Airtel Nigeria. Abu also held several senior management roles in the human resources, engineering, operations, finance, legal and marketing departments.

"Abu brings over 14 years of experience in the telecommunications industry which will be integral as we continue to expand our fibre network reach on the African continent," said Mohamed Abdel Bassit, regional CEO, MEWA, Liquid Telecom.

Wole Abu will take over as chief executive officer (CEO) for Liquid Telecom Nigeria effective January 2021, leaving the same position at Pan African Towers

Xoom offers transfers to mobile wallets in 12 African countries

Xoom, PayPal's money transfer service, said customers in the US, UK, Canada and Europe can now send secure and convenient money transfers directly to mobile wallets in 12 key markets across Africa.

This new service, which has a focus on the underbanked segment, expands the company's offering to send money to mobile wallets in Burundi, Cameroon, Ghana, Kenya, Madagascar, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia and Zimbabwe. There are also plans to include more markets in 2021.

In Ghana, Kenya and Zimbabwe for example, over 60% of adults have mobile money accounts. This new service expands Xoom's offerings in Africa as the current service already enables money transfers for cash pick-up, direct banks deposits and mobile reloads to 41 countries in the continent.

"Sending money to Africa through traditional channels has always been expensive. We wanted to help bring down the cost and speed up the process to boost financial inclusion," said Julian King, vice president and general manager, Xoom. "There is nowhere else in the world that moves more money on mobile phones than sub-Saharan Africa. While there are only five bank branches per 100,000 people as of 2019, there are 1.04 billion registered mobile money accounts in sub-Saharan Africa."

The cost of sending money through traditional channels to Africa is one of the most expensive in the world - making it prohibitively expensive to a number of people - with an average cost of 9.3%. The cost of sending $200 to the Sub-Saharan African region averaged 9% in 2018 and in the southern African subregion, the average cost was 18.7 percent, almost three times higher than the global average according to the World Bank.

Airtel Uganda and Mastercard launch virtual debit card

Airtel Uganda has joined forces with Mastercard to introduced a virtual (non-plastic) debit card offering the operator's customers a safe, convenient and secure platform for online transactions.

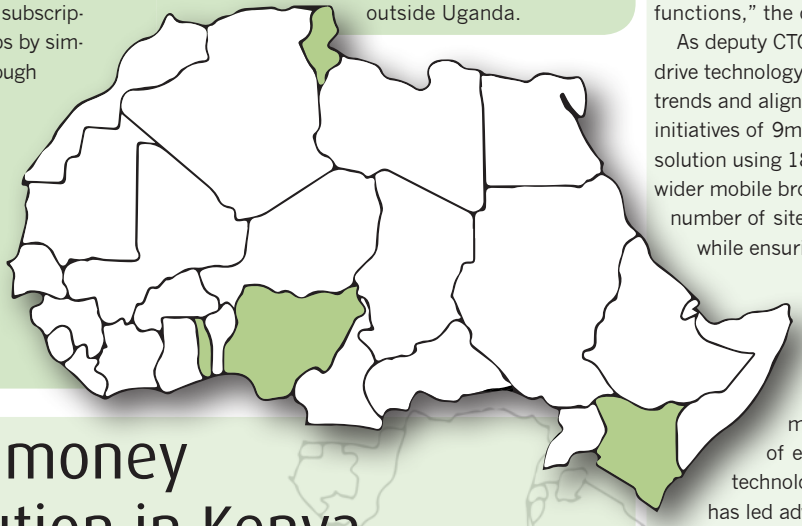
Airtel Money customers, even those without a bank account, can now make payments to local and global online merchants that accept Mastercard cards like Netflix, Uber, Amazon, Google play, Aliexpress, Alibaba. Both companies also said the customer's financial data is always secure and private.

"Airtel and Mastercard have a shared passion for digital transformation and making mobile financial services accessible to everyone across the country," said Amit Kapur, chief commercial officer Airtel Uganda. "Airtel Money customers can conveniently do online shopping, pay tuition and subscriptions to their favourite sites and Apps by simply registering for a virtual card through very easy and familiar steps."

Amnah Ajmal, executive vice president for market development, Mastercard Middle East and Africa added: "Across the MEA region our digital partnerships strategy remains focused on enabling digital transformation for our partners so that their consumers can enjoy seamless access to payments and a superior experience. We are very excited to partner with Airtel to lead the transition to digital by enabling access to their millions of consumers for online and in-person payments across the globe. Mastercard is uniquely positioned as a single technology provider to enable our digital partners like Airtel to transition seamlessly into digital."

The virtual card is valid for one year and can be deleted by the customer at any time. Customers can also generate a new one immediately. All transactions have a maximum charge of Ush 1,000.

The new card also means Airtel is poised to tap into the customers who already use the Airtel mobile money service but might be having problems making international transactions outside Uganda.



New global money transfer solution in Kenya

Co-operative Bank of Kenya, financial institution in Kenya and the larger east Africa region, has partnered with Thunes, a cross-border payment provider, to launch an alternative global money transfer solution.

Called Co-opRemit, it streamlines the process of real-time money transfers, particularly within Africa, allowing Co-op Bank customers in Kenya to move funds across the world quickly at an affordable rate.

Customers may send money directly to a foreign bank account or mobile number. Thunes says money transfers through this platform will bear no extra charge beyond the tariff, thus offering full transparency on forex fees.

Thunes said that Co-op Bank will enhance its digital banking services and deliver a convenient and cost-effective money transfer experience to its customer base of over eight million.

Co-opRemit users will be able to access the service from a number of channels starting off with any of Co-op Bank's branches across the country.

Nigeria's 9mobile makes executive level changes

Nigerian operator firm 9mobile has made several new executive appointments, including new chief technology officer (CTO), deputy CTO and director of strategy.

Juergen Peschel has been appointed as the new CTO, Baqi Salihu as his deputy and Karn Gulati as director of strategy.

"As CTO, Peschel, an experienced professional with an international executive track record within the IT, managed services and telecommunications industry, including expertise in a wide variety of industry verticals and markets, will oversee the evolution and integration of the company's technical functions," the company said in a statement.

As deputy CTO, Salihu will support the CTO to drive technology decisions in line with current trends and align the technical and transformation initiatives of 9mobile. He executed the LTE re-farm solution using 1800MHz spectrum, achieving wider mobile broadband coverage, slashing the number of sites, and reducing carbon emissions while ensuring high-quality data service.

The new director of strategy, Gulati, will be responsible for developing strategic, tactical, and operational initiatives.

"He is a long-serving management consultant with over 12 years of experience in the telecom and technology sector," 9mobile added. He has led advisory services teams focusing on Telecom, Media & Technology (TMT) industry and has worked across India, Africa, and south east Asia for various telecom clients. He also took a break and founded a tech & food start-up during his entrepreneurial stint for three years. His accomplishments include programme management of large-scale projects, achieving operational excellence with digitisation and process engineering, customer strategy, and greenfield launches."

Meanwhile, 9mobile said it has introduced its intelligent portal for instant verification to help its customers link their SIM cards with their National Identification Number (NIN).

Covid-19 leads to MoMo explosion in Kenya

Mobile Money (MoMo) usage in Kenya has exploded by 26.17% in 2020 compared to 2019 - with a financial value of US$45.3bn between January and November, as nationals followed government payment recommendations to curb the spread of Covid-19.

According to data from the Central Bank of Kenya, the mobile money segment has benefited greatly from the coronavirus crisis to the detriment of that of bank cards. The number of transactions, which was 1.7 billion from January to November 2019, rose to 4.4 billion during the same period in 2020. That is a growth of 160.45%.

The financial value of these transactions amounted to Ksh5,000bn (US$45.3bn) against Ksh3,962.834bn (US$35.9bn) in 2019. This represents a growth of 26.17% driven by the recent message of the president Uhuru Kenyatta, March 20, 2020. He urged people across the country to adopt mobile payments to help curb the spread of the virus. The number of subscribers has also increased from 58.039 million in November 2019 to 65.766 million in November 2020.

Tanzania joins regional community on the abolition of roaming charges

Tanzania has joined the project to reduce the cost of international communications in the region, following pressure from its peers in east Africa.

The republic joins the One Area Network (OAN), adopted by member countries of the Community of East African States (CAE) for the harmonisation of call rates in the sub-region.

Kenya, Uganda, Rwanda and South Sudan already applied the new international mobile roaming tariffs indicated by this initiative officially launched in January 2015.

Tanzania, five years behind its neighbours, had until the first quarter of 2021 to catch up.

In correspondence to the EAC secretariat, Stephen Mbundi, the permanent secretary of the Tanzanian Ministry of Foreign Affairs, told the sub-regional executive body that "the United Republic of Tanzania has concluded the consultations and is now ready to begin the process, implementation of the CAE roaming framework ".

The missive comes as the country was in the sights of EAC's Transport, Communications and Meteorological (TCM) Sector Council. At a meeting held from June 24 to 28, 2019 in Kampala, Uganda, Tanzania was given until March 31 this year to make a decision on the implementation of the "One Area Network". Burundi is also expected to join at a later date..

Econet says data traffic up 90%

Econet Wireless Zimbabwe (EWZ) registered a 90% upturn in data traffic on the backdrop of shifting Covid-19 linked work patterns by locals, the company said. The country has been on different levels of lockdowns since March 2020 prompting a shift in work and study patterns in favour of home-based workstations.

Presenting a trading update for the third quarter ended November 30, 2020, EWZ company secretary, Charles Banda said the firm has drawn dividends from the obtaining environment.

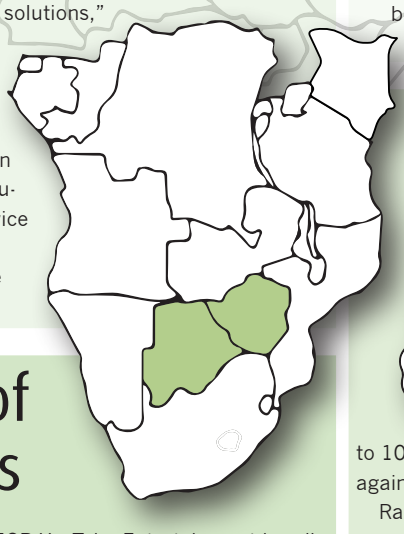
"Our past investment in resilient network infrastructure has positioned us to be the digital connectivity partner of choice," he said. "We continue to enable our customers to work and learn from home whilst observing social distancing etiquette. This is reflected in the data traffic volumes which have increased by 89.5% from the previous year."

Banda added that the pandemic has helped the group to understand the opportunities presented by digitalisation.

The group did experience a decline in voice traffic volumes following the tariff adjustments in July and August last year, but they have since started to recover.

Growth was experienced in SMS volumes reflecting the increased usage of e-commerce platforms which drives customer SMS interactions.

"As we go into the next decade, we are intensifying our efforts to adapt our business model to deliver digital solutions," added Banda. "The next few years will be pivotal to our transformation from a communications service provider to a digital service provider."



MTN offers new range of 'Back-to-School' bundles

MTN has introduced a range of Back-to-School device and data deals for pre-paid and post-paid in South Africa. The operator said the deals help nationals get "a fresh start" and offer them the value and flexibility they need for online and home-learning.

All MTN Back-to-School deals include free MTN Home bundles for data access to Google Classroom and Hangouts, Skype and WebEx.

Furthermore, for a one-off R599, prepaid customers will get a Sharelink H220M Mi-Fi LTE router + 50GB of value consisting of 13GB Anytime data (once-off), 1GB per month for 12 months, free 5GB YouTube Entertainment bundle and a free once-off 20GB MTN Home Bundle.

Customers already with a PayAsYouGo router can take up prepaid SIM-only deals including R99 for 15GB data, which includes 5GB Anytime and 5GB Night Express data valid for 30 days, plus a free 5GB MTN Home Bundle once-off or R149 for 30GB data (10GB Anytime, 10GB Night Express and 10GB MTN Home Bundle).

Subscribers under the age of 25 are eligible for the 10GB MTN Pulse Student Bundle which comes with free 500MB MTN Home Bundle (5GB Anytime and 5GB Night Express) for R49.

Mara Phones appoints new MD

Mara Phones, the South African manufacturer of smartphones, has appointed Sylvester Taku to the position of managing director with immediate effect.

He has been the head of growth at Mara Phones since 2019 and led the opening of the first bricks-and-mortar Mara Experience Store in Maponya Mall, Soweto, exactly a year after Mara Phones unveiled the country's first smartphone manufacturing facility in KZN.

The retail store enables customers to experience the look and feel of Mara Phones' devices while being able to interact with technical specialists in their own community.

"Sylvester is bold and dependable with an amazing ability to spot the next opportunity. He will continue to do exceptionally well at Mara Phones as we grow together and make a huge positive social impact, bring fantastic shareholder returns and create real value for customers," said Mara Phones CEO Ashish Thakkar.

Taku added "It is a privilege to lead the South African operations of the continent's flagship smartphone brand; Mara Phones. Every South African can be proud that world-class smartphones roll out of our South African factory every day and my focus going forward will be on growth in new markets and forging new partnerships while solidifying the brand where we're currently achieving."

Mara is a subsidiary of Mara Corp, an African brand and company that has been working on the continent for over two decades.

Madagascan gov cuts telecom tax to 8%

The government of Madagascar has cut the excise duty on the telecom sector, which rose from 8% to 10% in the 2020 finance law but dropped again to 8% in the 2021 finance bill.

Ranesa Firiana Rakotonjanahary, the secretary-general of the Ministry of Posts, Telecommunications and Digital Development (MPTDN), said the decision followed a study conducted by the department which showed that a decline in the excise duty will benefit consumers at all levels.

However, the department said it will continue to monitor the actions of Airtel, Blueline, Orange Madagascar and Telma to improve the telecom environment. The rationale is to ensure that there will be a drop in prices for all consumers and not only for users of social networks, which has happened in the past.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How IoT healthcare is transforming testing for infectious diseases across Africa

The road to universal healthcare in Africa is by necessity taking a different route with digital health projects deployed across the continent. Robert Koldys from Telecom26 takes a look at an innovative testing programme made possible by IoT networks

In fact, the World Health Organisation says that there are fewer than 5,000 intensive care beds across 43 of Africa's 55 countries which is about five beds per million people, compared with about 4,000 beds per million in Europe.

However, a shortage of physical infrastructure - hospitals and beds - doesn't mean that the people of Africa go undiagnosed and untreated both during the current Covid crisis - and in the future.

The approach to universal healthcare is by necessity taking a different route from other continents. Just as parts of Africa leapt straight from no telephones to 3, 4 and now 5G coverage, the rollout of Digital Health projects are improving access to health care services for those living in hard to reach areas across Africa.

Two companies that have been pioneers in the rollout of ehealth and mobile health solutions are Telecom26 and its long-term customer, SystemOne. Together our innovative approach of integrating diagnostic devices with IoT networks is changing the way healthcare is delivered.

Traditionally medical samples taken from patients are transported by road to the nearest laboratory for analysis. However, many of the medical centres are in remote rural areas and so it can take days for samples to arrive and the results and treatment plans communicated back to the patient. Unfortunately, speed of diagnosis and treatment is often the difference between life and death with many infectious diseases.

Across 43 countries, SystemOne tests around 250,000 people per month for TB, HIV, ebola - and now Covid-19. It has been operational in 19 countries in Africa since 2012.

SystemOne's technology has revolutionised testing programmes. Its software connects to any diagnostic analyser into which samples are fed with information sent to a remote diagnosis system where diagnosis and treatment plans can be immediately developed and sent back.

The approach Africa is taking towards universal healthcare is by necessity a different route from other continents

In addition, the information that SystemOne gathers helps countries respond more effectively to outbreaks of infectious disease by identifying positive cases faster and allowing a big-picture view of disease spread across a region.

Key to the success of SystemOne's real-time remote diagnostic data software is reliable connectivity.

Unreliable bandwidth and patchy connectivity are problems encountered by digital health programmes across the world but particularly in Africa where many medical clinics are in remote areas with unreliable telecom networks.

Brad Cunningham, COO at SystemOne, says "The traditional route for us was to buy local SIMs to provide device connectivity. Unfortunately, this limits users to one mobile network operator (MNO) - and adds juggling multiple SIMs across devices to find the strongest local network to a long list of headaches for healthcare professionals on the ground".

Telecom26's global SIM cards were developed with the specific goal of improving connectivity in remote areas. They enable devices to automatically access and switch between multiple networks both in-country and across borders thus removing the need to worry about the coverage of a single MNO, or the existence of roaming alliances. Multiple-IMSI profiles are pre-loaded on every SIM allowing for simple reconfiguration if the primary network has poor or no service.

Telecom26 has been providing IoT connectivity to SystemOne across both Africa and Asia for the last two years. Most recently, the contract has been extended to SystemOne's projects in Ghana, Mozambique and Zimbabwe.

The SystemOne diagnostic devices used by medical personnel now have Telecom26's global SIM cards inside.

In addition, SystemOne is trialling Telecom26's multi-SIM routers in Mozambique and Zimbabwe. These enable SystemOne's diagnostics devices to access secure connectivity and automatically switch between multiple cellular and satellite networks - and any wifi or LANs - so that they always use the best performing connected network available.

Together SystemOne, Telecom26 and their IoT healthcare approach are saving lives across the world and helping countries respond more effectively to outbreaks of infectious disease by identifying positive cases faster and allowing a big-picture view of disease spread across a region. ■

Covid-19: a blessing for mobile money?

Many countries in Africa have either stopped or limited the circulation of cash in a bid to slow down the spread of the novel coronavirus. Robert Shepherd asks: could this be the making of mobile money?

Mobile money, affectionately known as MoMo to many, has been a staple of the east African economy for years.

After more than a decade since its emergence, the service has evolved as the formal financial service of choice for many underserved groups in developing countries.

Pre-pandemic days, the rapid adoption and widespread use in this part of Africa wasn't necessarily to do with convenience, but on its necessity, since it bridges gaps for the "unbanked" population that the existing banking sector doesn't.

It comes as no surprise then that emerging markets have become the epicentre of mobile money activity and sub-Saharan Africa has long been experiencing the most growth. Prior to Covid-19, transaction volume and value in the region saw double-digit growth during the last decade, and mobile money accounts are expected to reach 500 million at the end of 2020.

Championed by the late Bob Collymore, the late chief executive officer (CEO) of Safaricom, Kenya and Tanzania have embraced the technology that helped the unbanked pay and receive money for goods and services for some time now.

Nevertheless, we are now in very different times - fighting a war with an invisible and indiscriminate enemy, going by the name of Covid-19. Is that good or bad news for mobile money? Let's start with east Africa, which is now synonymous with the likes of Safaricom's M-pesa service.

Edwin Okoye, chief executive officer of Follow Me Talk, a smartphone financing company, says that while mobile money is popular, it is saturated. "What will happen now due to Covid is that people will need to look for 'deals' on mobile - either with cheaper calls, or spreading the costs of handsets," he says.

"Mobile Money is already a saturated market in Kenya - with nearly all the banks trying to have a go at it. Covid has had a massive impact on the Kenyan economy and one big impact has been that smartphone sales have gone through the roof. People are at home looking for new business ideas and consuming more data looking for jobs or communicating with loved ones."

He says that one implication of Covid that Follow Me Talk can predict is that there will be more take up of financing of smartphones. "At the moment people are still conscious of the economy but we predict that before Christmas and certainly in 2021, there will be a big rise in financing," Okoye continues. "Covid has increased phone usage in Kenya - especially with more people working from home. People also want to try new alternatives for cheaper calls, or new international numbers for cheaper calls to friends and family abroad. It's actually a great time to be launching an MVNO service."

However, head left to the west coast of the world's second largest nation and you'll find that "Cash is King". Well, that was true until the Covid-19 pandemic ripped through the continent, making the governments of Nigeria and its neighbours nervous of handling banknotes, owing to the fact they can carry the novel coronavirus, transmitting it from person to person.

While that might be the obvious and conscientious thing to do, it's not always straightforward expecting a population to embrace a new method of payment when they've spent centuries using cold, hard cash. Before that, of course, the infrastructure needs to be established in the first place.

Patrick Roussel, director of mobile financials services, MEA, Orange says apart from northern Africa and in the Middle East, the countries where it operates as a mobile money operator (MMO) in Africa have less infrastructure than in eastern Africa but things are moving and Covid19 is accelerating progress.

"For example, bank switches are not yet present in our countries but with Orange Money we have more and more direct bank integrations (Bank2Wallet) which enable us to propose transfers from a customer's Orange Money wallet to their bank account and vice versa," he says. "Also, we have more and more retailers that are willing to integrate Orange Money as a payment method. In general, we can see that, especially since the pandemic, regulators have been increasingly promoting mobile money adoption."

That said, Anil Krishnan, head of Africa region at Comviva, the Indian mobile solutions and VAS specialist, says even in the pre-Covid era, "quite a few west African countries like Ghana, Côte d'Ivoire, Senegal and Mali; central African countries like Cameroon, Gabon and Democratic Republic of Congo and southern African countries like Zimbabwe, Zambia, Mozambique, Botswana and Malawi had significant traction on the mobile money front. "Popular MoMo services like Orange Money, Airtel Money, EcoCash, MTN MoMo, etc to name a few have been doing extremely well in multiple African countries even before the onset of Covid pandemic," he says. "We are also seeing other markets in the region warming up to mobile money services in the post Covid times. For example, Nigeria has approved regulations to launch of mobile money in the country through Payment banks. While Egypt took slew of regulatory measures like easing KYC rules and increasing transaction limits, Ethiopian regulators have also cleared the decks for the lone operator in the country to offer mobile money services. Morocco recently saw launch of three new mobile money services including Inwi Money and Orange Money. MTN in South Africa re-launched MoMo. These are positive trends that show the popularity of mobile money now transcends east Africa."

It's a view shared by Ahmad Sayed, regional director, Middle East and Africa at fellow VAS specialist, Nexign, who says pandemic aside, MoMo "has been a hot trend", especially countries in western and north western Africa. What's more, he has the stats to back up the claim. "According to the 2019 GSMA report on Mobile Money, Africa is by far the leading continent for MoMo services with 50 million new accounts created on the continent in 2019 and a 12% increase in registered users," Sayed

Ahmad Sayed, regional director, Middle East and Africa, Nexign

"Generally, telco operators are ready for MoMo in terms of infrastructure. However, implementation of BSS solutions that support online charging and MoMo transactions can make it even easier for CSPs to fully embrace the trend"

continues. "Big operators and groups in Africa try to promote MoMo because it is a huge revenue generator. A good example is Orange with its Orange Money offering and recently launched 100% mobile Orange Bank Africa."

Sayed says that, generally, telco operators are ready for mobile money in terms of infrastructure. "However, implementation of BSS solutions that support online charging and MoMo transactions can make it even easier for CSPs to fully embrace the trend," he continues. "However, regulatory requirements and local laws can be an obstacle. In some countries, operators are not allowed to operate as a bank – for example, to host a mobile wallet and use it to transfer money – which means that CSPs have to partner with banks and other institutions to launch these services. In this case, the operator provides the front end for financial services to its clients, but the actual transactions happen within the partner bank's systems."

Good news then that, in the current climate, MoMo is not the preserve of a handful of east African nations. However, it still begs the question as to how the more 'unbanked' countries with little internet access survive if cash is no longer in circulation if app-based transactions become the dominant form of money transaction?

Krishnan says one of the key success factors of mobile money among the "unbanked" in Africa is that the services are fundamentally device and "channel agnostic". In simple English, that means the services work seamlessly across access channels supported by any type of phones – basic feature phone to smartphone. "Internet availability has proven less of a challenge in the adoption as the mobile money services are being offered over other popular access channels like USSD, IVR, etc," he continues. "In fact, a significant portion of transactions in Africa (over 90% in some countries) are done through USSD, which does not require internet. On the other hand in markets with reasonable

Popular MoMo services like Orange Money, Airtel Money, EcoCash, MTN MoMo, etc to name a few have been doing extremely well in multiple African countries even before the onset of Covid pandemic

Internet connectivity, we are also seeing the rise of mobile money apps, which provide better user experience as well as more flexibility for innovations such as 'Scan & Pay' (QR Code), 'Tap & Pay' (NFC) and so on."

If you don't have a smartphone, there are other options, such as the mobile payment option that is Orange Money. Even more than that, it's a service that is very easy to use, accessible from almost all phones and does not need to have internet access, according to Roussel.

"The service works from a simple 2G network through the very classic USSD interface," he continues. " Customers register free of charge at an Orange Money point of sale near their home: this can be an Orange store of course, but also, depending on the country, an Orange franchise, a grocery store or a petrol station for example. Then, once registered, our customers can perform all of their other operations directly from their mobile. One of the Orange Money strengths is to put in place a huge number of point of sales i.e. more than 300,000 across our footprint in order to facilitate customer cash in and cash out."

Roussel says Africa is already seeing increased proliferation of smartphones, such as the Orange Sanza mobile phone range, "providing an affordable way for consumers in the UEMOA region" to gain access to more advanced technology. "These smartphones will deliver new ways for customers to access mobile money services through easy to use apps, and new functionality which will improve the customer experience," he says.

For Sayed, even countries without widespread internet connectivity can have operators that offer mobile money solutions. "In fact, today primary channels for MoMo are USSD and SMS and high-speed internet and mobile broadband (4G/5G) is not absolutely necessary, which means this won't be much of an obstacle for African CSPs," he adds. "Moreover, MoMo can be a good solution for banks that need to develop remote service channels in places where financial infrastructure is not well-developed. Here operators can help banks by providing them with solutions that enable remote card issuance in compliance with all KYC procedures and reach the existing mobile subscriber base with new financial services."

Unlike other forms of technology, such as methods of communication, the uptake tends to be more evolutionary. People see their friends using an app, so they join them. Yet while one could argue that the slow, but steady appreciation of mobile money in northern, western and southern Africa is or was evolutionary prior to the pandemic, one could

General Trend: Narrowband & Broadband Convergence

Today, PMR networks provide critical communications for a wide range of organisations within a number of vertical markets such as public safety, public transport, utilities, oil and gas and mining, etc, with reliable, secure and highly available mission critical voice and low bandwidth data communications, based on instant push-to-talk technology. However, many organisations are increasingly dependent on the reliability of broadband data to help them run their businesses more efficiently and to increase productivity.

In comparison to narrowband networks, the investment in private broadband networks is huge. In some situations the investment cost are even 10 times higher.

Based on the continuous increased demand of private networks as well as the increase of big data, critical applications and the need for real time video, we believe that the narrowband and broadband convergence within the PMR industry, which will be a long-term coexistence, is the future trend.

Hytera Multi-mode Advanced Radio

As a pioneer in PMR communications, Hytera developed the multi-mode advanced smart radio. Through this device end-users are now able to get the best of two worlds - narrowband and broadband communications on a single device. Through the adoption of the multi-mode advanced radio, organisations are now able to retain their mission or business critical narrowband networks for as long as they want. This ensures a full return on their investment.

We believe that before the development of broadband networks and services enters the mature stage, end-users heavily rely on narrowband for critical voice communications and broadband for data applications. During this long transition period, we are convinced that multi-mode devices can meet the demanding requirements of these demanding end users globally.

- The convergent multimode radio delivers critical voice and broadband data applications
- Extend network footprint with complementary PMR and LTE networks
- Interoperability between various device types and vendors

Hytera Hybrid Mission Critical Service Platforms

To go with the stream and make multi-mode radios better serve industrial users, Hytera has developed three Hybrid platforms, Hytalk, Hytalk Pro and Hyteralk MC, which help users easily carry out daily administrative tasks, supporting enhanced security. The platforms provide trunking voice and video communication, converged command and dispatching, high speed multimedia data transmission service based on commercial network as well.

also retort that it has now become a medical necessity – a revolution, if you will.

If the latter is to be believed, does that mean mobile money will be more than a short-term catalyst and – for want of a better expression – "the future"? Sayed says there is no doubt the pandemic has accelerated the trend towards virtual products and remote channels. "When personal visits to banks and cash payments became dangerous, all market participants started looking for a contactless infrastructure that would be ready for operation with minimal modifications," he continues. "Covid-19 might be a short-term catalyst for use of MoMo, but the growing trend for transactions without physical contact makes MoMo extremely attractive both for CSPs and end-users in a long-term perspective. Earlier people were not making use of MoMo, mainly due to security concerns. Now, after Covid-19 forced them to use MoMo solutions, many subscribers feel more confident about it, even those who were initially sceptical. Now the trick for CSPs is to convince people to continue using MoMo and change the 'Cash is King' mindset with new digital offerings."

Roussel says the pandemic has definitely been a catalyst for accelerating trends in digital adoption by Orange's customers. He adds that during the pandemic, the BCEAO Central Bank and others like BEAC in central Africa and BCC in DRC have asked Orange and other MMOs to cut transaction fees for Orange Money and reduce KYC requirements, in an attempt to encourage people to avoid using cash and therefore help slow down the spread of the virus. "For example, the person-to-government (P2G) payments, like public benefits and pensions, school fees, etc. is particularly vital during a pandemic for people and governments," he says. "There is a growing understanding that the effects of Covid19 will be long-lasting. The crisis has increased mobile money adoption, and the strategy of Orange is to accelerate the Orange Money digitalisation for a better customer experience and more services. And Orange is encouraged by the governments and the Central Banks in this strategy."

The irony is that despite the pandemic bringing global economies to a grinding halt, some positives have come from it, depending on one's own personal circumstances. For Krishnan,

Anil Krishnan, head of Africa region, Comviva

"One of the key success factors of mobile money among the "unbanked" in Africa is that the services are fundamentally device and channel agnostic"

it has reinforced the need and demonstrated the multiple benefits offered by mobile money services. "A large number of users beyond east Africa where MoMo was already popular have experienced the benefits of contactless payments at merchants, P2P transfers, enabling financial transactions like bill payments, etc during the lockdown period," he continues. "Mobile money is also enabling government and humanitarian organization to disburse financial aid directly to mobile wallets of the vulnerable people, collecting Covid-19 relief donations digitally, paying salary to front line workers etc."

Krishnan believes these use cases and benefits will – in Comviva's view – propel the adoption of mobile money in these markets as we have witnessed significant growth in mobile money transactions during the pandemic period. "It is our strong belief that the interest in mobile money is not short-term and this service is here to stay even in post Covid-19 era," he says.

However, it's not all roses for players in the mobile money space.

The success of such services attracted the attention of tax authorities seeking to expand their revenue base. After all, in sub-Saharan Africa, the formal economy represents about 34% of the population, putting extra pressure on states to seek new sources of revenue. Mobile money services have been such an opportunity. While there is no doubt that African governments have to raise taxes and broaden their tax bases, they must also approach tax policy with a discerning eye. Despite the diverse methods proposed to tax mobile money, in most cases the results – especially on mobile money transaction – are controversial, proving the structural weaknesses of taxation in the region and putting Africa's financial inclusion at risk.

A recent report from GSMA notes: "State authorities are unable to fully understand the nuances of emerging sectors, such as mobile-money services or even the wider digital economy." The result has been "badly designed taxes which, although they may seem attractive at first sight, fail to consider the impact on the broader economy and society."

Independent research and reports from prestigious organisations, such as the above mentioned GSMA, reveal aspects of the problematic way in which mobile money services are treated. This includes specifics of the population that uses these services or the negative impact on financial inclusion those taxes bring about.

According to another report of GSMA, 77% of mobile money providers reported paying sector-specific taxes in 2019, whether on fees, transaction values, or total revenue. Additionally, 23% of those affected said taxation was harming the uptake of mobile money services and their business, revealing the regressive effect of poorly designed taxes.

Sadly, in the absence of a vaccine/cure, we're still no closer to knowing when we might see the back of this debilitating, the world at large will have to continue looking at ways to minimise the spread. If, in this case, Africa is looking to migrate from paper to digital money, it's not a bad idea to know what's out there.

"Today you have to be an Orange customer to use the service," says Roussel. "Now it is possible in many Orange Money countries to make money transfer transactions to non-Orange Money countries such as for example between Botswana where Orange is implemented and Zimbabwe where Orange is not."

Comviva is also doing its bit, with customers in over 40 countries in Africa. It also takes a lot of pride in what it calls its "dominant" position in the African market for its digital financial solutions that include our mobile money platform, digital banking suite and electronic recharge & voucher management solution. "Today we not only serve telecom providers, but also banks, fintech and digital payment providers," adds Krishnan. "We are building on our strong leadership position in the region to expand our reach into other countries for our digital financial solutions both in greenfield as well as transformation opportunities."

What about Nexign? SAYED says the Russian firm is willing to develop its Network Monetisation Suite and offer its functionality to African customers to help them embrace mobile money and its benefits, like fast money transfer, micropayments and NFC-based payment products.

"Nexign has already a successful example of partnering with MegaFon - a pan-Russian provider of digital opportunities and a leader in the Russian and global telecommunications market - to create a popular mobile money product," adds Sayed. "MegaFon subscribers were offered a virtual bank card that mirrored the mobile balance and could be immediately used with an NFC-based smartphone payment system. As a result, MegaFon received a convenient product closely integrated with the connectivity services and loyalty programmes. Within the 1st year of the project MegaFon issued one million virtual cards bound to subscribers' mobile accounts and increased ARPU by 100% for mobile money users."

He argues that Nexign's solutions are flexible enough to support multi-currency and be implemented in various countries. "Despite different regulatory requirements in each region, Nexign's delivery team is ready to share its experience and work closely with African CSPs to develop MoMo offering that will be fully integrated with partner's solutions and will be suitable for the local market," says Sayed. "Ultimately, Nexign can help African CSPs be fintech advocates in their region and become trusted partners for customers that use financial services."

While the bad news is, we don't know how things will pan-out in the short or even long-term, the good news is you don't have to have all the mod-cons synonymous with wireless technology to make or receive payments. This could make mobile money. ■

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Empowering businesses and subscribers through investment and collaboration

Africa is seeing steady growth, but there are ways to make it grow faster, writes Clementine Fournier from BICS

Mobile infrastructure in Africa is evolving. There are moves to make cross-continent roaming affordable. We're seeing investment in infrastructure from home and abroad. Lower-cost handsets are helping to democratise internet access and communications. All of these factors are allowing individuals and communities to benefit from mobile digital services and the growing IoT. They are also crucial for businesses to realise the potential of the African continent.

However, challenges remain. This year, these have included Covid-19 and fraud, both of which present barriers to progress. If such challenges can be overcome, intelligent connectivity will drive Africa's digital transformation. It will support everything from harvests to healthcare, and enhance the lives of the continent's 1.2 billion residents. Last year, mobile money transactions with a total value of over $456 billion were carried out across sub-Saharan Africa. That's three and a half times the value of transactions recorded in South Asia, the second-highest ranked region in terms of such services. This is helping to fuel enterprise and commerce across the continent.

Connected agriculture, meanwhile, presents fertile ground (pun intended!), and offers a solution to enduring problems of food poverty. Since 2016, over US$19m has been invested in connected agritech in Africa alone, according to a report released last year by Disrupt-Africa.

Businesses in the sector include AgroCenta, which is aiming to improve the agriculture value chain in Ghana. Its online platform allows smallholders to access finance and the agricultural market, cutting out middlemen and selling goods directly to buyers.

Smart healthcare is also thriving. Zipline, for instance, recently announced that its drones are now responsible for delivering more than 20% of Rwanda's national blood supply outside the country's capital city of Kigali.

Connected industries and services such as these are helping to attract investment and boosting home-grown businesses. But there is still a lot more investment and progress that can be made.

Investing in connectivity for Africa's future

In terms of attracting investment, you couldn't pick more high-profile partners than Google and Facebook. In May, Facebook announced 2Africa, one of the largest subsea cable projects in the world. The 37,000km cable will deliver internet capacity, redundancy, and reliability across Africa, connecting both sides of the continent on a single system.

At the start of July, the Kenyan government gave the go-ahead to Google-owned Loon to launch a network of internet-enabled balloons across the country. The balloons will provide 4G coverage and will initially cover a region spanning 50,000sqkm.

That initiative has sinced been cancelled, but it shows Africa's ambition. However, it's also worth noting the wider business, political and soft-power benefits that such a strong presence on the continent can afford. To ensure investment in connectivity is intelligent – not just for the main players in question, but for the continent, its citizens and telco community – partnering with local businesses and governmental organisations is crucial. Investment, wherever and whoever it's from, should empower African regions. Loon's project is a collaboration with carrier Telkom Kenya, while Facebook said it has 'partnered with leading African and global operators to build 2Africa.'

Connecting Africa makes business sense, but what of the end users of connected services? According to the GSMA, there are 456 million unique mobile subscribers in sub-Saharan Africa. By 2025, this is predicted to reach 600 million. This latter figure represents about half the total population of Africa, which is still fairly low compared with other global regions. The opportunity for telecoms providers to grow in Africa is therefore huge. In fact, the GSMA forecasts $51 billion in operator revenues by 2025. In 2018 they were $42 billion; an increase of around 21%.

Challenges of working from home

2020 and Covid-19 have highlighted the importance of access to reliable, affordable connectivity. At the start of the pandemic there was much talk of Covid-19 as a virus that does not discriminate. However, it quickly became apparent that those with limited access to services would obviously be the worst hit. Those services include healthcare of course, but they also include digital services and the underlying connectivity infrastructure that supports these.

Since March, working from home became the norm for many employees across the world. For many – myself included – this was perfectly feasible. Decent broadband and cellular connectivity meant we have been able to do the basics, like access emails and make phone calls. A smaller, though still sizable proportion, have also been able to make and take video calls, attend virtual events, and collaborate with colleagues using cloud-enabled unified communication and collaboration platforms. For many employees based in countries in Africa, on the other hand, the situation has been very different. Without connectivity, smartphones or computers, many employees have been unable to work remotely. Others have had to contend with network congestion caused by a sharp rise in the number of people trying to get online.

Supporting the surge in internet traffic has been a challenge for some operators. The pandemic will have highlighted to many governments the level of investment that's required to develop connectivity infrastructure and improve national backbones. Nigeria's government, for instance, recently approved the National Information Communications Technology Infrastructure Backbone, an initiative to extend fibre infrastructure to 19 states in the north of the country. Cameroon, meanwhile, is set to complete the country's component of the Central Africa Backbone by the end of this year.

To ensure that subscribers receive a high quality of service, it is important – especially across a continent as huge as Africa – that traffic is kept locally. This can be achieved by routing traffic via points of presence, or PoPs. If operators and service provider don't utilise PoPs, voice calls placed in Africa have to be rerouted via international PoPs, impacting the quality of service. A call made from Kenya to Tanzania, for example, would normally be routed through London and back to Tanzania, travelling thousands of kilometres in the process. Leveraging PoPs means that voice and roaming data traffic stay within the region. By keeping traffic in Africa local, customers can benefit from an increase in the quality of service, no latency and increased internet speeds.

Roam free in Africa?

Africa is home to around 1.2 billion people, and many businesses and livelihoods are dependent on the seamless movement of people and goods. An 'intelligent' approach to connecting the continent must therefore include a focus on developing roaming infrastructure. Upgrading infrastructure from 3G to 4G (and thus delivering a better QoS for subscribers) is a global trend. In January, BICS' findings on worldwide mobile traffic growth revealed an uplift in roaming traffic across all continents. We've also noted an uptick in the number of our African operator customers launching LTE roaming. Two years ago, only around 10% had done so; today its approximately 60%.

'Intelligent connectivity' needs to be accessible and affordable for end users. We've seen great strides in this area in 2020. New members continue to join the SMART Africa Alliance, for instance, and support its One Africa Network project. The Alliance is working to reduce roaming charges among the 30 participating African countries, which collectively represent over 750 million people.

Upgrading roaming infrastructure and delivering 'intelligent connectivity' is not without significant challenges. Upgrading to LTE roaming is a separate process to launching next-generation services on a national level. First, a national backbone must be upgraded, and only then can an operator reconfigure roaming infrastructure. In many regions, there's still some way to go.

The GSMA predicted that 3G connections would overtake 2G connections in 2019. We'll await more recent announcements to see if this has been the case. However, we do know that in 2018, 4G accounted for 7% of total connections in sub-Saharan Africa, compared to the global average of 44%. It won't be too long before this improves, though 4G adoption is predicted to overtake 2G in 2023 and rise to 23% of connections by 2025.

4G connectivity will help to support the kind of IoT applications discussed earlier. In the meantime, 3G is adequate for many IoT applications. Deployments of 5G across Africa remain few and far between, and we've not received any requests for 5G roaming in Africa. In July, South African operator MTN launched its 5G network in the country, with the initial deployment of 100 5G sites. However, this is limited to regions in Johannesburg and Cape Town, so remains far from the kind of accessible service needed to guarantee what we can term 'intelligent connectivity.'

Fighting fraud

Another major challenge is fraud. Again, Covid-19 served to highlight what still needs to be achieved by many African countries to ensure safe, secure, high quality services for subscribers. Traditional SIM box fraud has always been an issue in Africa, and during the Covid-19 period we also witnessed a surge in Wangiri. In addition to a reported increase in victims of Wangiri on the continent, a number of global reports pointed the finger of blame at African countries, where many of the scam calls originated.

As with the need for upgrading infrastructure, Covid-19 has demonstrated there is a need to improve security and anti-fraud solutions on operators' networks. This includes deploying solutions like SMS firewalls, IPX security, and fraud detection and blocking platforms.

Tackling the bottleneck

Despite the global crisis of Covid-19, developments in connectivity are continuing throughout Africa. The pandemic will undoubtedly impact what is already the biggest bottleneck in improving technology and access to technology: cost. However, we've seen positive moves by OTT players and traditional telcos, and this investment activity must continue.

Investment must be a combination of government and private sector. It must go hand in hand with industry regulations that enable competitive pricing for the customer. Finally, to ensure that connectivity really is 'intelligent' for end-users as well as for businesses and operators, collaboration and regional participation is needed to drive innovation. ■

Ooredoo Algeria deploys Nokia Cloud Mobile Gateway

Ooredoo Algeria becomes the first telecom operator in north Africa to deploy a virtualised telco application as part of its key partnership with Nokia

Last year, Ooredoo Algeria partnered with Finnish gear-maker Nokia to take the first step towards next generation networks and reinforce its technology leadership in the region with the successful deployment of North Africa's first virtualised Mobile Gateway.

This is a crucial step for the migration of core network elements to the cloud and paves the way for the transformation of the core network to support next generation mobile network technology. The deployment allows Ooredoo Algeria to meet growing data demand in the region and provide new and innovative services like Internet of Things (IoT), in addition to enhanced broadband to its subscribers.

Once deployed, Ooredoo Algeria's subscribers will be able to enjoy high bandwidth-consuming services, delivering the best possible performance and reliability.

Nokia's Cloud Mobile Gateway has been installed and placed into commercial service. Nokia will be deploying more gateways in the near future.

Next Generation Core (NGC) is a service-based architecture that calls for the evolution of the core network. Deployment of the Cloud Mobile Gateway is one of the most important steps in this transformation. It will help Ooredoo Algeria "deliver a seamless network" experience across fixed and wireless access technologies. With the help of the Nokia AirFrame data centre solution, Ooredoo Algeria will be able to deliver telco applications that demand low latency.

"Collaboration with Nokia for this initiative will help us in transforming our networks for next generation mobile broadband services and reinforcing our technology leadership," says Abdullatif Hamad Dafallah, chief executive officer at Ooredoo Algeria. "Nokia's field-proven, end-to-end solution will enable us to enhance packet core capacity and to start the process of cloudification for telco applications. With this solution, we will be able to support more users, devices and services over wireless and fixed access. We are proud to continue our pioneering technology deployments with the implementation of this first virtualised network application in north Africa. We look forward to working with Nokia for future projects as well."

Pierre Chaume, head of the north and west Africa market unit at Nokia, adds: "The consumption of data is increasing across the world and telcos are grappling with ever-increasing demand for capacity. The deployment of the Cloud Mobile Gateway will help Ooredoo Algeria in the evolution of the core network to enable its customers to enjoy high-bandwidth services, delivered with the highest possible performance and reliability."

Africa definitely has the appetite for 5G. It might just need to be more realistic re timings. ■

Network upgrades during Covid-19: the world's first remote activation of a cellular backhaul network

Vodacom DRC is the second largest MNO in DRC with around 15m customers, with a voice and data service provided over nationwide 2G, 3G and 4G networks. The operator's cellular backhaul needed an overhaul and as Vodacom's largest operational overhead, the network needed to be more efficient with capacity maximised and the flexibility to meet the TTM (Time-To-Market) changes. It also needed to be able to adapt and be upgraded so Vodacom can continue to grow its revenues.

Vodacom turned to its long-term supplier and trusted advisor, Gilat Telcom, for help with re-designing and upgrading its network.

In 2019 after two months of extensive research and analysis, Gilat Telecom presented a thorough plan which included:

- A complete network re-design including RF and satellite
- Procurement of new equipment · and shipping
- Integration with 3rd party vendors including Huawei and ZTE
- Physical end terminals migration
- Disaster recovery
- Rollout and Activation
- The arrival of Covid·19

Unfortunately, Covid hit the DRC before the network upgrade had started. Equipment was stuck in the port and overseas engineers were unable to enter the country.

However, Covid didn't stop Gilat Telecom from improving Vodacom DRC's network

Thanks to the strong relationships of Gilat Telecom's team on the ground, they were able to organise the shipping and customs clearance with small engineering teams assembled across the country in both cities and rural areas. Deployment, integration and activation were all completed remotely.

The network upgrade has been a fantastic success. Vodacom's OPEX has been reduced by 20%. This was achieved by squeezing more capacity by integrating the latest technology with a new network design.

DRC's network is now more agile and able to meet changes in demand and needs. As a result, customer satisfaction and ARPUs are rising.

Vodacom now has a network that is easier to manage, with the ability to pro·actively monitor and earlier identification of problems.

Gilat Telecom is also working on a similar project in West Africa to reduce OPEX by re-designing a nationwide cellular network · and aligning existing technologies and equipment.

Davor Folkenfolk, head of business development, Gilat Telecom says: "The OPEX of many MNOS across Africa can be reduced by understanding the actual needs, bottlenecks and overheads. The network's re-design becomes much easier with all data now available. Deployments are never easy in the DRC and COVID complicated matters. However, we were determined to see this project through. The results were immediate, and the customer delighted". ■

How mobile money is helping to connect the women of Ghana

Access to financial services can be a critical driver of economic growth and opportunity. In Ghana, mobile money has opened access to financial services for millions of people for the first time, strengthening the payment ecosystem and deepening financial inclusion. Despite its capacity to widen access to financial services, mobile money has not proven to be equally accessible for women in Ghana. According to the World Bank's Global Findex 2017, women in Ghana are 23% less likely than men to have a mobile money account.

Mobile money is particularly relevant for women in Ghana given the prominent role they play in commerce. As both merchants and customers, women dominate the open markets that drive trade and business in many towns and cities across the country.

To encourage the digitisation of merchant payments in these markets — the economic lifeblood of the country — MTN Ghana launched a merchant payment service in January 2017 called MoMo Pay. While MTN Mobile Money could already be used informally by customers to make payments to vendors, MoMo Pay simplifies and streamlines the process and offers reduced customer transaction fees.

There is evidence that MTN MoMo Pay is providing two important and distinct benefits to women in Ghana, particularly those who work as vendors in the open markets. First, MoMo Pay empowers female microentrepreneurs in markets through the digitisation of their transactions, thus deepening their financial inclusion. Second, it drives greater mobile money use and engagement among female customers. This study found that, after adopting MoMo Pay, customers increased both the frequency and value of transactions and became more likely to remain active users, especially women. MoMo Pay addresses barriers to using mobile money when paying market merchants, including cost and lack of convenience, and has commercial benefits for merchants that offer the service and actively promote it to their customers.

Women tend to dominate commerce in Ghana's open markets, making up the majority of both customers and merchants

Mobile money was first launched in Ghana in 2009 by MTN. Uptake has increased quickly since then and today Ghana is one of the most mature mobile money markets outside East Africa. In 2012 there were only 345,000 active mobile money accounts in Ghana, and by March 2019 this had grown to 12.7 million — a rapid pace of growth. However, some research suggests that access to mobile money in Ghana has not necessarily been equally distributed: according to Findex, in 2017, women were 23 per cent less likely than men to have a mobile money account– although a phone survey of MTN Mobile Money customers conducted for this study found a more equal gender balance.

Women tend to dominate commerce in Ghana's open markets, making up the majority of both customers and merchants. In an economy where 80 per cent of the workforce is employed in the informal sector, these markets play a vital role in driving commerce and economic activity.

Most markets currently operate almost exclusively in cash, while mobile money transactions are typically used for either non· commercial purposes or high· value transactions. This is perhaps unsurprising given the fast· paced, informal nature of market transactions. In 2016, an estimated 99 per cent of all transactions in Ghana were made in cash.

Women's prominent role in market commerce in Ghana, combined with low mobile money uptake for vendor payments, signalled an opportunity for MTN to promote a new mobile money use case while also driving mobile money use among this underserved group by launching a dedicated merchant payment service – "MoMo Pay".

MoMo Pay is a use case that is most likely to be embraced by those already using MTN Mobile Money. Most existing MoMo Pay users had already registered for Mobile Money before MoMo Pay launched in January 2017. It has therefore not driven significant uptake of MTN Mobile Money by new customers, either male or female.

However, both the qualitative research and transactional data analysis show that, for those who use the service, MoMo Pay can encourage more regular use of MTN Mobile Money and engagement with a wider range of Mobile Money services.

After customers adopted MoMo Pay, several effects were observed that led them to rely more heavily on MTN Mobile Money, maintain a higher balance in their mobile account and spend more using mobile money. Some of the more engaged users of MoMo Pay were also acutely aware of the indirect savings MoMo Pay provided, such as reduced travel times and cost that would otherwise be needed to acquire cash.

Our qualitative research also demonstrated that particularly engaged users, both male and female, began using Mobile Money in other ways, such as connecting their bank account to their Mobile Money account, ordering home deliveries, saving through an MTN Y'ello Save account and using Mobile Money for leisure applications, such as paying for Uber ride sharing, making purchases through e-commerce sites like Jumia and Kikuu, paying bills and buying airtime and accessing loans like the MTN Qwik loan. ■

Last mile unit is easy to disguise

This new wireless device from Infinet Wireless is said to be ideal to supply a last mile service to businesses and homes and for CCTV.

The Quanta 5-18, the latest in the company's range, is claimed to deliver an industry-first throughput of up to 460 Mbit/s in just 40 MHz of spectrum with lower power consumption and easy installation.

It uses Infinet's software defined radio (SDR) technology and is said to deliver stable connection in the most difficult weather, including extreme temperatures.

Infinet says it can be easily fitted to lampposts and buildings, including those of historical significance. It says that unlike other wireless products which often have curved details that are hard to paint and impossible to cover with film, Quanta Q5-18 can be painted over to easily blend with its surroundings. It measures 188x188x45mm and weighs 1.3kg. It has a claimed reach of 5km and can serve up to 10 CCTV cameras.

Infinet has 500,000 deployments from the plains of Siberia to the Sahara and is one of the largest privately owned broadband wireless access (BWA) development and manufacturing companies in the world. *infinetwireless.com*

Base stations designed to serve low populations

Service providers planning greenfield deployments in areas of low population face the challenge of supplying high-quality omni-directional coverage inexpensively for a limited number of potential customers, says Radwin.

The company says its two new PtMP dual-carrier base stations, MultiSector, suit these providers and network operators with a similar challenge.

MultiSector, it says, delivers 1.5Gbps throughput and supports up to four sectors per base station with integrated or external antennas for 360-degree coverage. They enable increased network capacity and coverage while reducing complexity and TCO.

Radwin says the new base stations minimise the amount of glue components and cabling wiring per site. They incorporate dual radios, built-in GPS antenna and Layer-2 Switch. Self-backhaul removes the need for an additional PtP radio.

MultiSector Integrated includes 180-degree (dual 90-degree) sector MIMO antennas and connectors to attach an additional 180-degree Radwin antenna unit or third-party antennas to cover a full 360 degrees. Each of the radio carrier resources are split between two antennas in the time domain, avoiding signal power loss when using an RF splitter.

This model, says Radwin, was designed for MicroPoP coverage supporting short range connectivity of up to 2-3km.

MultiSector Connectorized is a self-contained base station, connecting up to four external MIMO antennas to enable ultra-high flexibility in antenna selection per deployment. *radwin.com*

Wireless products find the best connection

New Wi-Fi 6 devices from Nokia are said to be the first self-optimising mesh products. They use EasyMesh, as certified by the Wi-Fi Alliance.

The new products include fibre gateways, 5G fixed wireless access (FWA) gateways and mesh Wi-Fi beacons. The company's Wi-Fi mesh middleware is embedded in their operating systems to automatically and autonomously solve any issues with performance, including interference and congestion.

This, it says, ensures that the best channels and bands are selected to provide the fastest and most reliable connection for every user and every device.

There is a cloud controller designed to provide full visibility on all access points and allows optimization of Wi-Fi performance across neighbouring buildings.

The new range includes: ONT G-2426G-A (pictured) and XS-2426G-A: dual-band, AX1800 capable ONTs (optical network terminals) with GPON (global passive optical networks) and XGS-PON (a passive optical networks standard) uplinks respectively; Beacon 2 and Beacon 6 are dual-band AX1800 and tri-band AX4200-capable mesh access points with ethernet and Wi-Fi uplink, to extend the mesh network; and FastMile 5G Gateway 3 and 5G Gateway 3.1 which are dual-band, AX3600-capable mesh access points with 5G uplink with high-gain and omni-directional antennas respectively. *nokia.com*

New access points deliver Wi-Fi 6 indoors or outside

Four new Wi-Fi 6 access points have been introduced to appeal to users from small businesses to those which need to cope with extremes of weather.

Juniper Networks says the new products are driven by Mist AI and are operated via its cloud services.

AP63 (pictured) has a vBLE antenna array to deliver Wi-Fi and location services in outdoor and harsh environments; AP33 has an integrated vBLE antenna array to support Wi-Fi and location services for moderate density needs that also require accurate location services, such as smaller enterprise offices, shops, schools and clinics.

AP32 is equipped with an integrated omni BLE antenna to support Wi-Fi and basic asset visibility location services for cost sensitive customers. Jupiter says it is suited for remote workers, smaller offices and schools that do not require advanced location services.

AP12 is a compact wall plate AP for multiple devices and said to be easy to deploy. It is, says the company, ideal for home offices, remote workers, school dorms and hotel rooms.

The new APs, which follow Juniper's flagship AP43, are said to be the first cloud-managed Wi-Fi 6 access points with integrated AI-driven automation and insight. This, it says, simplifies Wi-Fi 6 operations and delivers features such as intelligent load balancing between radios/bands, service levels that monitor and enforce orthogonal frequency-division multiple access (OFDMA) subcarrier assignments, Basic Service Set (BSS) colouring assignments for high-density Wi-Fi environments, sticky client prevention using AI-driven algorithms and advanced radio resource management (RRM). *juniper.net*

Two-way radio eases move from analogue to digital

Specially designed for small- to medium-sized businesses in sub-Saharan Africa, the Mototbro DP540 two-way radio has been introduced by Motorola Solutions.

The company says it is suited to cost-conscious businesses looking to move to digital technology for reliable and efficient communications. It is based on the ETSI digital mobile radio (DMR) standard, which it says is proven worldwide in affordable digital systems with low complexity.

Motorola says the radio makes the transition from analogue to digital smooth because it can operate in both digital and analogue modes.

Made to withstand harsh conditions and resist corrosion, it is said to have superior audio output and unique features, such as voice announcement customisation, allowing users to adapt the default voice announcement languages using their own audio files. It is also designed for multi-language working environments, with special audio profiles designed to deliver enhanced audio quality when speaking languages with distinct rolled "R"s such as French or Afrikaans.

Motorola points out that in mission-critical areas such as healthcare it is not ideal for personnel to handle their radios.

Like other models in the range, the DP540 is equipped with voice-activated transmit (VOX) which allows users to operate their radio without the need to press the push-to-talk (PTT) button. In addition, there are compatible earpieces designed for handsfree operation. *motorolasolutions.com*

Lancom's new entry-level Wi-Fi 6 access point looks like a smoke detector

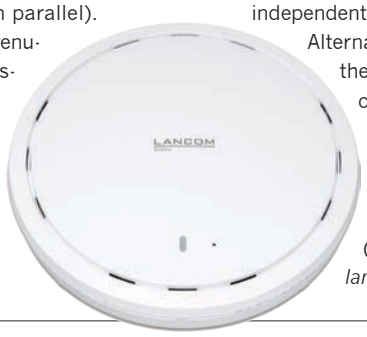
Styled to look like a smoke detector, Lancom's new entry-level Wi-Fi 6 access point is priced to appeal to small- to medium-sized organisations.

With aggregated data rates of up to 1,775 Mbps, the LW-600 is said to be ideal where small to medium numbers of users require high-throughput Wi-Fi.

Lancom says its inconspicuous smoke detector design blends harmoniously into hotels, offices, medical practices or small schools. It is managed automatically from Lancom's cloud service, with a web interface or by a WLAN controller.

The LW-600 is said to provide fast access to clients in the 2.4- and 5-GHz frequency bands. In dual-concurrent mode, it achieves aggregate data rates of up to 1,775 Mbps (up to 1,200 Mbps with 5 GHz and up to 575 Mbps with 2.4 GHz in parallel).

And it says genuine 2x2 multi-user MIMO distributes all of the available downlink and uplink spatial streams to several clients concurrently, rather than consecutively. The available bandwidth is exploited to the full and delays in the wireless network are reduced.



Power is supplied via PoE meaning that it can be installed independently of power sockets. Alternatively, it can use the power adapter and country adapter supplied. It includes a number of security features and has a three-year warranty (five years optional). *lancom-systems.com*

Wireless router is ready for the future

Targeted at businesses with branch networks, the E3000 range is said by Cradlepoint to be the first 5G-optimised, all-in-one wireless edge router for the market.

Customers, it says, can set up a wireless WAN today using LTE and Wi-Fi technology and seamlessly upgrade to 5G in the future.

Packaged as part of the company's NetCloud Enterprise Branch Service, E3000 products contain an embedded gigabit-class LTE modem, integrated Wi-Fi 6, gigabit Ethernet ports for WAN/LAN connectivity, and expansion slots accommodate a secondary LTE modem module today with 5G modem and Bluetooth 5.0 modules due later this year.

Cradlepoint says it can run processor-intensive WAN edge features within the NetCloud service at gigabit speeds, including BGP routing and application-aware SD-WAN and security functions, such as firewall, analytics, IPS/IPS and content filtering. It also supports customisable services like Wi-Fi guest portal and IoT edge computing capabilities.

It is said to be ideal for branch-oriented sectors such as retail stores, restaurants, healthcare clinics, financial services, construction sites, and field service offices.

Cradlepoint, now owned by Ericsson, claims to provide the most pathways from LTE to 5G in the industry. In February, it introduced the W-Series 5G Wideband Adapter, said to be the first 5G product purpose-built for the enterprise. *cradlepoint.com*

Look out for...

NGMN unveils plans for 6G

The Next Generation Mobile Networks (NGMN) board has launched a 6G project, while continuing its 5G efforts, it said.

NGMN published the first 5G White Paper in 2015, which helped pave the way for standardising 5G and its commercialisation. A second 5G White Paper (5GWP2) followed in July 2020

The new 6G Vision and Drivers project is designed to provide early and timely direction for global activities around the next generation. NGMN will facilitate an information exchange within its internal partnership and with relevant external stakeholders.

With its new "6G Vision and Drivers" project, NGMN intends to provide early and timely direction for global 6G activities, which will develop the mobile network technology for operation in the future. In this context, NGMN will also facilitate an information exchange within its internal partnership and relevant external stakeholders. NGMN said it is "very excited" to be working on this future vision project and to set the footprint for generations to come.

"As we continue to implement and further develop 5G to maximize the benefit of its potential, our goal as NGMN is to remain at the forefront of next generation mobile networks," said Arash Ashouriha, SVP group technology innovation, Deutsche Telekom and chairman of the board of NGMN said. "It is therefore essential that we start anticipating the future societal needs and elaborate the drivers for mobile communications in the future."

Anita Döhler, CEO of NGMN added: "The NGMN Board is committed to further drive the implementation of 5G. At the same time, we are looking at the future with our new work on 6G. Our organisation with its network operators, vendors and research associations has played such an important role for the requirements setting of 4G and 5G, and we will continue to provide guidance also for the next generation mobile networks beyond 5G. Interested parties are welcome to contribute to the "NGMN 6G Vision and Drivers" activity."

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CK Hutchison and Ooredoo talk Indonesia merger

CK Hutchison and Qatar-based Ooredoo QPSC have entered talks to merge their Indonesian wireless phone businesses in a bid to fight growing competition in the country.

A deal would require the merger of Jakarta-listed PT Indosat, in which Ooredoo owns about 65% and CK Hutchison's PT Hutchison 3 Indonesia unit, the companies said in a statement.

The negotiations will be exclusive until April 30, as both firms try to compete against state-owned PT Telkom Indonesia, the nation's largest operator and Axiata Group Bhd.'s local arm PT XL Axiata, in southeast Asia's biggest market by subscribers.

"Ooredoo is in the early stages of assessing the merits of such a potential transaction," the firm said in a statement. "As part of our corporate strategy, we regularly review our strategic priorities and market position across all of our operations, and their contribution to the Ooredoo Group,"

Ooredoo which operates across the Middle East, north Africa and southeast Asia. CK Hutchison, a conglomerate founded by Hong Kong's richest man Li Ka-shing, said in a separate statement the potential transaction is subject to due diligence, agreement on terms, signing of definitive agreements and obtaining all required corporate and regulatory approvals.

Orange shifts fixed fibre assets

French operator Orange has agreed to sell part of its fixed fibre assets in the country to a consortium of three investors for about €1.3bn. The firm said in a statement that it agreed to sell 50% of Orange Concessions, a vehicle that will include some of its French fibre assets, to Banque des Territoires, part of France's state-owned bank Caisse des Dépôts, insurer CNP Assurances and EDF Invest consortium.

This is the first time that the Paris-headquartered company has announced a sale of part of its prized broadband network in France.

The move comes as the telecoms industry must invest to keep on deploying upgraded broadband networks in Europe as well as a costly new mobile Internet technology, or 5G.

This deal values Orange Concessions at €2.7bn, the company said. The entity covers circa 4.5 million fibre-to-the-home (FTTH) plugs in rural France.

Orange said it will update markets about its plans for its European mobile assets when it reports full-year results on February 18. The group is following similar moves by other European firms that are looking to sell mobile networks as infrastructure valuations surge on interest from investors such as U.S. private equity firm KKR and Spain's Cellnex.

Stéphane Richard, chief executive officer and chairman at Orange said the "achieved valuation reveals the value of Orange's investments in fibre as well as the relevance of such a strategic move".

Orange's decision to sell comes as the company prepares to outline its strategy for its mobile towers, worth an estimated €10bn, following long-term rumours about the future of the assets.

Etisalat launches 4G LTE service

Etisalat Afghanistan, a subsidiary of Abu Dhabi's Etisalat Group, has launched 4G LTE services in the country's northern Balkh province.

The introduction of the fourth-generation technology means customers in Mazar-i-Sharif can now enjoy up to 10 times high-speed internet at the same price as their 3G plans.

In a statement, the operator said the launch would also enable customers to choose from a wide range of 4G LTE data plans.

"We are pleased to witness the launch of our 4G network in the beautiful city of Mazar-i-Sharif,' said outgoing Etisalat Afghanistan CEO, Matthew Willsher. "With Etisalat 4G, businesses and individuals will benefit from faster and more reliable internet."

Etisalat said it plans to expand its coverage after the 4G LTE launch in Mazar-i-Sharif and has published a list available on its website and Facebook page to show the exact locations where its 4G LTE service is available.

Etisalat launched Afghanistan`s first 3G service and – to date - has been offering the most affordable voice and data plans in the country.

The 4G LTE launch ceremony was held at Etisalat's Mazar-i-Sharif branch December 28.

CVC Capital acquires Myanmar's Irrawady Green Towers

Luxembourg-based private equity firm CVC Capital Partners has agreed to buy Myanmar's largest telecom tower company, Irrawady Green Towers, in a deal reportedly valued at about US$700m.

The purchase marks the global buyout firm's first venture into the southeast Asian country and sees it absorb 4,000 towers across Myanmar.

According to reports, CVC was given exclusivity after it was shortlisted from potential buyers, including regional telecoms groups and other companies.

Potential bidders – yet unnamed suitors – hired local consultants and technical advisers to conduct site visits and due diligence during the sale process that took just over a year to be completed.

Law firms Freshfields Bruckhaus Deringer and SCM Legal acted as legal counsel to the selling shareholders.

"This landmark transaction was the largest mergers and acquisitions deal in Myanmar in 2020 and another example of the attraction of the Asian digital infrastructure sector, including data centre and fibre optic asset portfolios, for private equity investment" said Freshfields major projects partner Don Stokes in a statement.

Irrawaddy serves all major mobile network operators in Myanmar, including Norwegian telecom giant Telenor, Qatar-based Ooredoo and local firm Mytel. CVC has yet to comment on the deal publicly.

The purchase marks the global buyout firm's first venture into the southeast Asian country and sees it absorb 4,000 towers across Myanmar

Vietnam slaps ban on 2G, 3G smartphones

Vietnam said it will ban the importing and manufacturing of 2G and 3G phones, as part of move to promote widespread adoption of smartphones to support digital transformation in the nation.

The southeast Asian country's Ministry of Information and Communications said the new rule will come in effect from July 1. However, phones that do match up to the spec requirement but were already in the country before the deadline can still be sold.

Furthermore, the government said the move is considered a step towards plans to switch off 2G networks by Q1 2022 and its "programme of universalisation of smartphones".

Hoang Minh Cuong, Ministry of Information and Communications director of the Telecommunications Department, said production of phones with 2G technology had "decreased significantly" with units falling 6·7 million to 12 million, between the end of Q4 2019 to Q3 2020. Hoang tipped the remaining 12 million phones will be "wiped out" by advanced models by Q1 2022.

The country aims to have all citizens to own smartphones by 2025 by providing smartphones retailing up to US$50 under its "Made in Vietnam" nationwide digital transformation programme, which was backed by operators and smartphone vendors such as Vingroup.

Vietnam announced previously to have 5G become the universal standard by 2023·2025, with operators already running pilots in preparations for a broad commercial rollout.

Meanwhile, Intel has invested $475 million in its Vietnamese assembly and test facility, pushing the company's total investment in the local site to $1.5 billion. The fund injection went towards "enhancing" production of Intel's 5G product line, Core processors integrated with its hybrid technology, and 10th Gen Core chips.

Located in Saigon Hi-Tech Park, Ho Chi Minh City, the facility is Intel's largest assembly and test sites worldwide.

Starlink launches satellite Internet in rural UK

Elon Musk's Starlink broadband satellite network has secured a licence to install user terminals in Britain, the UK's telecom regulator Ofcom has confirmed.

The terminals consist of a Wi·Fi router and a small satellite dish which the company's official installation guidelines call "Dishy McFlatFace".

Starlink said it will focus on rural areas currently deprived of fibre broadband, where in the UK it will compete with government·backed satellite service OneWeb, which was rescued after filing for bankruptcy in March 2020.

Costs will run to £439 for the equipment and £89 a month for the service, with the UK trial's first invitation emails going out last week.

Musk's Space Exploration Technologies Corp (more snappily known as SpaceX) has also set up a UK company, Starlink Internet Services. SpaceX will undertake an initial public offering once its revenue growth becomes "reasonably predictable," Musk said in December.

Rural broadband has long been a thorny issue in the UK with much of the union only getting online through the telephone lines.

Approximately 5% of UK homes don't have access to download speeds of at least 30 megabits per second. The slowest street in the UK (in Surrey, England) recorded an average speed of just 0.12 Mbit/s.

Despite being in the world's top six economies, the UK ranks 47th in the world for average download speeds.

Starlink has also received the green light from regulators in the US Greece, Germany and Australia.

Starlink said it will focus on rural areas currently deprived of fibre broadband, where in the UK it will compete with government-backed satellite service OneWeb, which was rescued after filing for bankruptcy in March 2020

Deutsche Telecom looking to sell T-Mobile Netherlands for over €5bn

Deutsche Telekom (DT) is looking to sell its Dutch subsidiary for €5–6 billion, a Dutch newspaper has reported.

According to Het Financieele Dagblad, T·Mobile Netherlands could soon find itself up for sale again and that DT is looking to offload the company to private equity investors, seeking to raise €5–6 billion.

In 2015, it was also reported that the German operator was considering a sale, in part to reduce debt and raise funds to help purchase spectrum for T·Mobile US. Since then the Dutch division has grown in size, merging with the Dutch operations of Sweden's Tele2, but rumours of selling the unit have long been circulating, with private equity firm EQT a company cited as a potential buyer November 2019.

Rivals KPN and Vodafone Ziggo will not enter the bidding.

India: Airtel becomes first telecom company to operate 5G network

Bharti Airtel has become India's first telecom operator to successfully demonstrate live fifth·generation (5G) service over a commercial network in Hyderabad city.

It operated the 5G network over its existing liberalised spectrum in the 1,800 MHz band through the NSA (non·standalone) network technology.

Using dynamic spectrum sharing, Airtel operated 5G and 4G concurrently within the same spectrum block. The new technology will be made available to customers across the country when the adequate spectrum is available and required government approvals have been received.

Managing director and CEO of Airtel, Gopal Vittal said that every investment the company has made and is making is future·proofed.

He added that India has the potential to become a global hub for 5G innovation and to make that happen, they need the ecosystem to come together including applications, devices and network innovation.

Airtel has operations in 18 countries across Asia and Africa.

Deutsche Telekom and O2 to share network

Deutsche Telekom and Telefónica/O2 have agreed to share mobile networks in a bid to close the coverage gap in Germany.

The pair said they aim to overcome several hundred grey spots in 4G network coverage for their customers before the end of 2021. They will share active network technology at the sites.

However, unlike previous projects, such as site sharing or the agreement to close white spots, no second separate wireless technology or additional antennas need to be installed.

"Joint projects like this are becoming increasingly important to network build-out – in both broadband and mobile communication," said Srini Gopalan, managing director of Telekom Deutschland.

Telefónica Deutschland/O2 CEO Markus Haas, added: "German consumers and business are demanding rapid progress in mobile network coverage. Co-usage of sites is an important step in this direction and a positive signal to Germany's mobile communications customers."

In Autumn 2019, Deutsche Telekom, Telefónica/O2 and Vodafone signed an agreement covering under 6,000 new sites.

PTCL gets 25-year licence renewal

State operator Pakistan Telecommunication Company Limited (PTCL) has had its licenced renewed by the government for a further 25 years.

The terms of the licence renewal state that PTCL must adhere to "enhanced quality of service (QoS) parameters" and will be obliged to deliver a 5% year-on-year rise in Next Generation Access Network (NGAN) connections.

The new validity period began at the start of the year and the Pakistan Telecommunication Authority (PTA) confirmed that the integrated licence is technology-neutral and permits the company to deliver all telecom services nationwide, except mobile services.

PTCL must pay 2% of its annual gross revenues into Pakistan's Universal Service Fund (USF) and Research and Development Fund.

The operator recently appointed Matthew Willsher as the new chief executive officer (CEO). Previously CEO of Etisalat Afghanistan, Willsher succeeds Rashid Naseer Khan, who was appointed as the CEO of PTCL on February 12, 2019.

Thai operators TOT and CAT Telecom complete long-delayed merger

Thailand's state-owned operators TOT and CAT Telecom completed a long-delayed merger to become National Telecom, which was made necessary by growing private-sector competition.

The new company will consolidate overlapping administrative staff, initially in the financial, human resources and legal departments. National Telecom said this approach will streamline operations and reduce costs, with no staff cuts planned.

Somsak Khaosuwan, the former acting chairman of TOT, initially will serve as acting CEO of the new company, which plans to boost earnings in the short term by capturing demand from public-sector agencies to introduce 5G networks.

TOT and CAT long-enjoyed and controlled monopolies over domestic and international telephone services, respectively. However, that changed post 2000 when Thailand opened the telecom market for competition from privately-owned businesses.

That resulted in loss of earnings at both companies, while their combined share of the kingdom's mobile communications market is around 2% to 3%.

There was talk of a merger a decade or so before new entrants were allowed in, but the deal was postponed repeatedly.

The completion was scheduled for July last year, but was stalled by the arrival of Covid-19.

Vandals burn down MTN and Vodacom towers

Towers belonging to Vodacom and MTN were burned down by vandals in South Africa, with the government blaming conspiracy theorists who link 5G airwaves to Covid-19.

In a statement, Stella Ndabeni-Abrahams, minister of communications and digital technologies "condemned" the vandals and urged South African police to arrest those responsible "for this anarchy".

"The burning of the cell phone towers follows a resurgence in conspiracy theories which link the emergence of the coronavirus pandemic to 5G", the statement read.

Three telecommunications towers in the KwaZulu-Natal region were destroyed between January 5-6, according to local reports.

"The destruction of network towers compromises multi-pronged efforts and initiatives to stem the spread of the virus," added Ndabeni-Abrahams. "We therefore, urge the police to arrest anyone who is threatening the removing of infrastructure network stations or towers."

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Vodacom urged for people to report those "deliberately spreading fake news" about the virus to the government. The Independent Communications Authority of South Africa (ICASA), the International Telecommunication Union (ITU) and the World Health Organisation (WHO), have confirmed 5G does not spread Covid-19.

Telefonica to sell Telxius Telecom to American Tower in €7.7bn deal

Spanish telecom giant Telefónica agreed to sell its towers in Europe and Latin America to American Tower in a €7.7bn cash deal.

Under the terms of the deal, Telefónica subsidiary, Telxius Telecom, will relinquish over around 30,722 telecommunication towers. Telxius also has an extensive submarine cable portfolio.

The Spanish firm said that once the transaction is complete, the group's net financial debt will be reduced by approximately €4.6bn and the leverage ratio by around 0.3 times.

"This operation is part of the Telefónica Group's strategy, which includes, among other objectives, an active portfolio management policy of its businesses and assets, based on value creation and at the same time, accelerating the organic reduction of debt," it said.

American Tower said it expects the assets to generate around US$775m in property revenue, approximately US$410m in gross margin, and around US$390m in adjusted earnings before interest, tax, depreciation and amortisation at current foreign exchange rates, in their first full year in its portfolio, pro forma for contributions from the committed future build-to-suits.

The Spanish firm said that once the transaction is complete, the group's net financial debt will be reduced by approximately €4.6bn and the leverage ratio by around 0.3 times

"This transaction is transformational for our European business and will establish American Tower as one of the largest independent communications infrastructure providers in Europe," said American Tower's chief executive officer, Tom Bartlett. "It is also complementary for our Latin American portfolio and positions us to drive strong long-term organic growth across both regions while augmenting our new build programs and enhancing our relationships with key tenants. We are excited to broaden our partnership with Telefónica by acquiring a high-quality, well-located portfolio of sites that will further diversify our global footprint and enhance our ability to help provide broadband connectivity for billions of people."

Telefónica has a global reach, with a raft of a subsidiaries including Movistar, O2 Vivo and Distrito Telefónica.

Telemedia partners with ABS for Earth station and teleport services

Telemedia, a broadcasting and teleport service provider in South Africa has partnered with ABS, a global satellite operator, to provide teleport services for the Middle East and Africa (MEA) region.

Under the terms of the deal, the companies are forming a strong alliance with ABS gaining a full suite of telecom services provided by Telemedia at its Johannesburg teleport. Its diverse facility provides seamless integration of satellite ground station and teleport services.

"Our collaboration with Telemedia reinforces and strengthens our presence in the MEA and provides an extension to our global connectivity network. Telemedia was chosen to provide teleport fibre connectivity, data centre hosting and satellite uplink capabilities," said Ron Busch, ABS' EVP engineering and operations. "Its infrastructure offering with a solid track record, excellent customer support and can-do attitude during the Covid-19 pandemic shows its commitment to excellent customer service."

Steve Bretherick, CEO Telemedia added: "This partnership with ABS invigorates Telemedia's ground infrastructure potential and its global coverage enables us to further expand our broadcast and satellite connectivity services in the MEA. The technical teams on both sides are working closely to leverage expertise to establish technical ground support within the region."

Indigo Telecom's 100 new jobs

Telecoms support services group Indigo Telecom will create 100 jobs in Limerick over the next three years, the company said.

The new roles at its international fibre centre of excellence will come through its Irish subsidiary 4site. Among the new jobs are fibre planners, GIS engineers, design engineers, telecoms surveyors, project managers and business support roles in accounts, sales and operations. The company's Irish headquarters are located in Raheen Business Park.

This new recruitment drive is to support the group's planned international expansion as it seeks to capitalise on the growing market opportunities around fibre to the home (FTTH), the implementation of wireless and 5G technologies and telco network services.

"We looked at various locations to expand our existing fibre centre of excellence, as we see unprecedented demand for our services in new markets such as Germany and the US," said Ian Duggan, chief executive of 4site. "We decided on the midwest of Ireland due to the very best local talent that we can continue to build on and develop further. This is a great vote of confidence from Indigo Telecom Group and is testament to the brilliant local talent and the work we already do here in Limerick."

Indigo Telecom Group currently employs more than 400 people in 10 offices located in the UK, Ireland, France, Germany and the Netherlands. Last year the group added 140 jobs, about 90 of which were in Ireland.

Tánaiste Leo Varadkar welcomed the news of the new jobs and said it underlined the company's commitment to the region. "This year more than ever we have relied on our communications networks to keep in touch, and I welcome the expansion of this sector here."

Meanwhile, Ireland is set for another jobs boost after Chinese tech giant Huawei said it will create a further 110 jobs by 2022. It will invest €80m into its research and development department over the next two years. The new jobs will be mainly based in Huawei's Dublin headquarters.

Q&A

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

Who did you want to be when you were growing up?

I've always been a big fan of Steve Jobs and I grew fonder of him after he managed to turnaround Apple. How he cultivated a customer focus that boosted the company's bottom line and the innovation shown prioritising customer in production and products. He was truly ahead of his time in terms of Design Thinking; the ability to learn from mistakes and "fail-fast". The other element which was inspiring at the time was his unwavering and relentless focus on pursuing his vision.

What was your first job after leaving school?

I was so eager to hit the work force so took a role combined with my last year of University studies. Joining a small Software Company that had the endorsement of Greg – "The Shark" – Norman, I landed a software engineering role with a golf swing coaching software company. It was the perfect job, traveling from one golf tournament to another working on the state of the art on site technology to assist golfers with their swing. It's a pity my golf swing hasn't improved so much over that time!

When was your big career break?

Having spent 10 years in the finance industry working in Systems Integration and IT, I was ready for a pure technology role. Ericsson presented the perfect opportunity being one of the pioneers in ICT. I've been with Ericsson since 2004 and haven't looked back since! The role has given me access to multiple markets, multiple disciplines and varied customer environments.

What is the best thing about your job?

The world as we know it is being digitized, and at Ericsson we get a front row seat. It's a pride to take part of connecting the world: we're connecting communities, digitalizing industries and enabling financial ecosystems by our technology. It's not easy to say that about all roles, but we can see real-life benefits to consumers and societies from what we do every day. Today, one of my real highlights is being able to help drive Mobile Financial Services uptake in Africa as an example, helping the unbanked get access to Financial instruments that drive both basic banking services and spur entrepreneurship.

What is the hardest thing about your job?

The "distance" in market maturity within geographies is the barrier that stands between those countries and the benefits of advanced technologies. While at the same time that we are making history with our 5G technology, in the same Middle East & Africa market we are trying to address basic telecom needs still with 2G and 3G spectrum. Addressing both market dynamics at the same time is difficult to balance while we are eager for all markets to benefit from 5G technology and it impacts not only on the telecommunication front, but also entertainment, healthcare, transportation...

What has been your career low to date?

None other than the Millennium bug. It had a huge impact on the ICT industry as a whole. It affected the perception the masses had on computer programming and technology rendering doubts on the ability for ICT to truly be fundamental in society. The recent Covid-19 pandemic went some way in my view to correct those perceptions. Technology and the quality of remote communication services became critical for all – and largely as an industry we have been able to maintain a positive communication experience for all those working and studying from home during this period.

What has been your career high to date?

Quite a few years back now and after 10 months of effort and hard work, we managed to rollout 3G nationwide in Australia for Telstra delivering coverage to 95% of the population. It was the first rollout of its kind at an international level, and to play a major role in that achievement gives me a lot of pride. It's a while ago now, but experiencing the impact that major technology change brings to society such as 3G at the time or even 5G as we deploy it today, gives an immense sense assuredness that we do everyday can really benefit consumers, enterprises and society at large.

Who has been your biggest inspiration?

I think the story of Ginni Rometty as the first female leader of IBM is quite impressive; the hardships and challenges but the perseverance and belief of one's own skills are a tremendous story. We don't often talk about it specifically, but "resilience" for me is one of those qualities I look for in both those I want to work for and with. The ability to sustain pressure, sustain setbacks and recover and perform can be truly inspirational.

What is your biggest regret?

I believe I should have taken on a role in the global market earlier on. The learning opportunities are multiplied on the global level. Different technology shifts, exposure to different cultures, new technical difficulties to learn from... The scene differs from a local market to a global one, the experience I gathered rubbing shoulders with global markets would not have been possible to acquire from one location. How you apply learnings across different markets also has different impacts – the learning you achieve in this regard becomes invaluable.

What is the best business lesson you have learned?

The motto "Fail-fast" is true to being able to re-ignite at the same time improve beyond the original misgivings. You learn when you fail, to apply that learning and generate the wanted outcome shows that failure in itself is a starting point for something special, if you can adjust your thinking ... It also builds humility. Knowing that pushing the boundaries can result in failure, it teaches you to listen, learn and collaborate more with others – rather than taking the "it was invented here" position every time.

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

I'd have to return to Finance; an industry that can benefit from design-thinking, agile ways of working and digitalization! Given the impact that financial trade and inclusion has in communities of all sizes and across all geographies, its one of those industries that continues to play a pivotal role in the way we live, interact and grow prosperity. It would also be a great opportunity to apply learnings from the experience of deploying mobile financial services in a telecom sense and how mobility is much more than just data transfer. Let's hope it's not too late!

What do you want to do when you retire?

I haven't locked down those plans yet, but I can already see lots of good coffee and morning newspapers. Reflection is probably one of those things we don't get enough time to do daily so if I can impart some learning from my years in technology, it's probably an area I'd invest my spare time and energy either via teaching, coaching or consulting...

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

I got to witness the Sony Walkman, which I think before we got the Iphone, started to scratch the surface of a "pro-user experience". It also combined the concept of mobility, user experience and content; something that is pivotal to the Telecom industry today! It also was the advent of technology 'add-ons' where the ecosystem of accessories and variants based on use case become an industry in itself! ■

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