Issue 2 2020
Édition 2 2020

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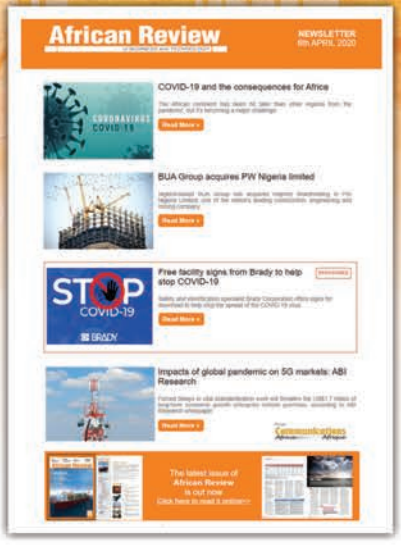

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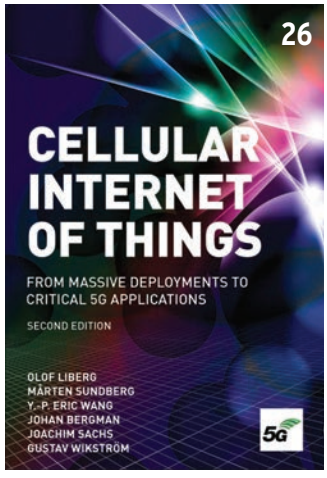
A note from the Editor

THE CURRENT HEALTH crisis has been challenging in many ways, but two industries in particular are responding well. Telecommunications and broadcasting are keeping people in touch, helping them to work and entertaining them as well as enabling cashless payment and supporting education. Some of these valuable roles for telecommunications and broadcasting during the pandemic are covered in this issue. But many other communications issues still need addressing, even now, so we also look at security, the cost of infrastructure rollout, business support services, RAN management, better use of customer data, mobile finance and more.

Stay safe. Stay healthy. Our best wishes to you all.



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Subscriptions: circulation@alaincharles.com
Chairman: Derek Fordham
Printed by: Buxton Press **Printed in:** April 2020
Communications Africa/Afrique is a bi-monthly magazine
ISSN: 0962 3841

Alain Charles Publishing

Impacts of global pandemic on 5G markets: ABI Research

FORCED DELAYS IN vital standardisation work will threaten the US$1.7 trillion of long-term economic growth that 5G for enterprise cellular promises, according to an ABI Research white paper.

The COVID-19 pandemic has forced a delay in the crucial standardisation work that would make 5G available for enterprise use cases. The relevant standardisation body, 3GPP, has formally announced a deferral of this standardisation until at least June 2020, which would delay commercial rollout of industrial 5G until at least 2022.

Given that most industrial enterprises are looking to upgrade their communication technology in 2021, this delay will result in 5G missing out on at least 25 per cent of the revenue opportunities within industrial enterprises. Given the importance of industrial use cases for overall 5G revenues, this translates into 5G losing up to 10 per cent of total expected 5G revenues. In the long run, this could result in a shortfall of several US billion dollars in contribution to the global economy, states global tech market advisory firm, ABI Research.

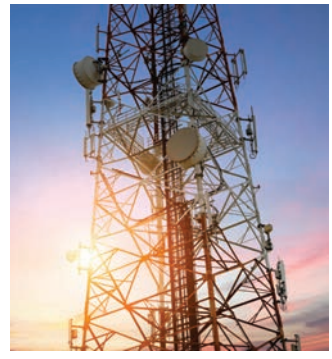


Photo: Adobe Stock

The cancellation of leading industry events, such as Mobile World Congress in Barcelona, caused more complicated workflows for the 3GPP.

"This is a blow to the standards bodies and the timeline of 5G," said Leo Gergs, principal analyst at ABI Research. "The cancellation of leading industry events, such as Mobile World Congress in Barcelona, caused more complicated workflows for the 3GPP. As a result, the freeze of Release 16 (which is of major importance for 5G applications in industrial and logistics environments) has been delayed until June. This would, in turn, push the rollout of 5G into warehouses, shipping ports, and factory floors until at least 2022."

Even though, in the short term, this current pandemic is putting the timely enterprise rollout of 5G at risk (due to the delay in provision of a standardisation framework), in the long term, enterprise verticals will consider 5G for automating workflows in factories and other industrial environments in order to keep supply chain disruptions at a minimum.

"However, we will also see 5G applications for life-critical-verticals – such as agriculture/food production – to pick up pace, while a growing number of countries will consider enhancing their healthcare sector with 5G-enabled capabilities," Gergs pointed out.

Egyptian Pound as settlement currency in Buna platform

ARAB MONETARY FUND (AMF) in collaboration with the Central Bank of Egypt have announced the inclusion of the Egyptian Pound (EGP) in Buna for the clearing and settlement of payments, alongside the US dollar, the Euro, the Jordanian Dinar, the Saudi Riyal, the UAE Dirham, and the Bahraini Dinar.

This is in line with the announcement of the launch of the Buna regional payment platform affiliated to AMF, and as central and commercial banks commence the onboarding process to join the Buna platform.

Buna is a multi-currency payment platform that clears and settles cross-border payments in eligible Arab and international currencies across the Arab region and beyond.

Opera helps provide 120 million African users with official COVID-19 information

WEB BROWSER OPERA has added a speed dial to the Opera Mini browser and Opera browser for Android, equipping people with quicker access to official information from local government institutions about COVID-19.

With this addition to the speed dial, Opera is helping provide millions of users in 38 African countries with general information about the actual increase of COVID-19 cases per country, tips and recommendations on how to reduce the risk of infection, and the latest governmental statements about lockdowns per country.

"Our mobile browsers and news applications are used by nearly 120 million people across the African continent. By adding the COVID-19 speed dial into our mobile browsers, we are helping millions of people make more informed decisions about how to deal with the pandemic in their local communities," said Jørgen Arnesen, head of marketing and distribution at Opera.

The Opera Mini browser and the Opera browser for Android have also included a dedicated news channel with the latest local and global news related to the coronavirus outbreak. The channel displays a feed of the top stories and most relevant local articles, as it uses the personalised AI news engine of Opera News.

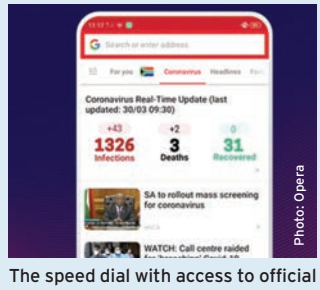


Photo: Opera

The speed dial with access to official information from local governments is available in 38 African countries.

Opera users can access the channel by swiping right on the home screen of the Opera Mini and Opera browser for Android. The dedicated news channel is currently available in South Africa, Algeria, Angola, Burkina Faso, Cameroon, Democratic Republic of Congo, Egypt, Ghana, Guinea, Ivory Coast, Kenya, Morocco, Mozambique, Nigeria, Senegal, Tanzania, Uganda, Zambia and Zimbabwe.

Intelsat selects SpaceX to launch Intelsat 40e satellite

SATELLITE TELECOMMUNICATIONS COMPANY Intelsat has selected SpaceX as its launch partner for Intelsat 40e (IS-40e).

The launch is planned for 2022 on SpaceX's American-built Falcon 9 launch vehicle.

Intelsat chief services officer Mike DeMarco said, "We look forward to working with SpaceX to launch Intelsat 40e in 2022.

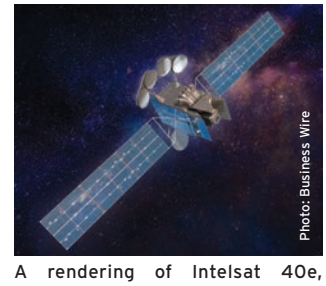


Photo: Business Wire

A rendering of Intelsat 40e, courtesy of Maxar Technologies.

"IS-40e will join the Intelsat Epic high-throughput satellite fleet and integrated IntelsatOne ground network to provide our customers with the managed hybrid connectivity they need in today's ever-changing world."

SpaceX vice-president of commercial sales Tom Ochinero said, "We are honoured Intelsat, one of the world's premier satellite operators, has selected a flight-proven Falcon 9 to deliver its next geostationary communications satellite to orbit."

Intelsat 40e is an advanced geostationary satellite that will provide Intelsat's government and enterprise customers across North and Central America with high-throughput 'coast-to-coast' services. The satellite's capabilities will support the growing number of customers that depend on Intelsat's managed services and solutions to easily integrate satellite into their overall networking and communications strategies.

Intelsat has announced in February that Maxar Technologies will manufacture IS-40e.

This is the second launch for Intelsat and SpaceX. In 2017, SpaceX launched Intelsat 35e, a satellite currently providing high-throughput coverage for Intelsat customers in portions of North and South America, Europe and Africa.

"M-Pesa users are now be able to send any amount below KES 1,000 for free for 90 days starting the 16th of March 2020. This was done to increase mobile money usage in the country, to reduce the risk of spreading the virus through the physical handling of cash."

- Michael Joseph
CEO
Safaricom

"This project highlights the major benefits of satellite internet in bridging the digital divide, as well as the efficiency of the solutions deployed by the Konnect Africa teams."

- Jean-Claude Tshipama
CEO
Konnect Africa
(on plans to connect several thousand schools across the Democratic Republic of Congo to the internet)

"We committed to investing in additional equipment and expand our West African service offering. Now, more than ever, affordable broadband can make a difference in our local markets."

- Houssein Cherifh
CEO and Founder
Mauritanian satellite services provider CSS

"Our joint venture will allow Vodacom and Safaricom to drive the next generation of the M-Pesa platform – an intelligent, cloud-based platform for the smartphone age."

- Shameel Joosub
CEO
Vodacom Group

"Our continued network expansion is our way of ensuring that in the most remote parts of Liberia, people can now connect to their families and loved ones using the MTN network. The communities we have connected so far are just the start. We will continue to connect more communities as we go along."

- Uche Ofodile
CEO
Lonestar Cell MTN

"We urge licensees to work with us for the benefit of all South Africans in a collaborative effort so that the emergency release of the spectrum can make a meaningful contribution to curb the spread and flatten the curve of the Covid-19 pandemic."

- Dr Keabetswe Modimoeng
Acting Chairperson
ICASA (South African regulator)

Zain report highlights technology role in circular economy

ZAIN GROUP, A mobile telecom company in eight markets across the Middle East and Africa, has released its annual thought leadership report "The Circular Economy: Embedding Sustainable Solutions in a bid to Save the Planet".

The report highlighted how the circular economy fits into helping address some of the devastating impacts of climate change. This type of economic model is essentially based on the principles of designing out waste and pollution; keeping products and materials in use; and regenerating natural systems, according to the report. Current linear economic models utilise raw and non-renewable materials to create products and once the product is consumed it becomes waste, which is neither efficient nor sustainable, the report said. The negative impact of inefficient economic models is real and growing, it added.

Photo: Adobe Stock

The circular economy can easily be embedded into the Information, Communication and Technology (ICT) sector.

Our planet is clearly at a point where it cannot withstand the waste generated from human activity, according the report. Today, people all over the world are producing 3.6 million tonnes of solid waste per day. It is estimated that by 2025, this will reach 6.1 million tonnes per day.

This report explores the definition of the circular economy and its various dynamics, comparing it to the linear economy model. The insight highlights the risks of the linear model, while providing views on the critical role technology plays in the circular economy, and identifies initiatives undertaken by Zain.

Bader Al-Kharafi, Zain vice chairman and group CEO, commented, "Exploring the growth opportunities offered by the circular economy is a progressive step in discovering the numerous opportunities for innovation. Such an evolution could potentially provide societies with mechanisms to successfully address environmental challenges."

Uncollected waste and waste directed to open landfills is extremely common across the MENA region, though the current state of digitisation offers compelling solutions to help address the negative impact of excess waste, with the emergence of nascent technologies such as big data, AI, robotics and IoT.

Western Cape human settlements app now available

SOUTH AFRICA'S WESTERN Cape minister of human settlements, Tertuis Simmers, went live on Facebook, to launch the much-anticipated human settlements app.

The app gives citizens easy access to information on government housing assistance, while allowing them to register for the first time or update their details on the database.

This launch demonstrates the government's commitment to implement innovative solutions for its citizens.

Playing its part in reducing social interaction and the potential spread of COVID-19, the launched was held live on Minister Tertuis Simmer's Facebook page.

Orange Digital Ventures leads US$1.5mn investment round in Youverify

ORANGE DIGITAL VENTURES Africa has announced its latest investment on the African continent by leading the US$1.5mn seed investment round in Youverify.

The start-up, founded in Lagos, automates identity and background verification processes, primarily serving financial and telecommunication service providers. Youverify is the fifth company to join the portfolio of Orange group's African investment initiative.

Financial and mobile payment services continue to accelerate their development on the continent, Orange Digital Ventures said in a statement. Verification tasks remain complex and manual for major players, fintech and large corporates and the rise of RegTech companies, such as Youverify, is vital for the market in order to speed up and simplify these tasks, it announced.

Co-founded by Gbenga Odegbami, the company's CEO, Youverify aims to help companies automate the verification processes of different types of data treated separately, such as identity, academic background, home address, credit history and facial recognition, while respecting the highest standards of regulation and data protection.

The US$1.5mn investment round will help Youverify improve its technology and accelerate business development in Nigeria and the continent.

Since its launch in Lagos in 2018, Youverify has already performed more than 300,000 customer registrations and verifications for some of Nigeria's largest banks and financial companies.

Orange launches Orange Money in Morocco

Orange Morocco has announced the launch of Orange Money, which will allow Moroccans to make mobile payments and transfer money using their phones. Morocco becomes the 18th country in the Africa and Middle East region to offer the Orange Money solution.

Orange Money offers every mobile user, regardless of their telecom operator, the option of having a mobile wallet backed by their phone number.

COVID-19: Africa CDC to use smart ways to educate and sensitise the continent

AFRICA CENTRES FOR Disease Control and Prevention (Africa CDC) is collaborating with the Co-Creation Hub (CcHUB), a technology innovation centre in Africa, to launch a call for innovative communication projects on COVID-19 based on indigenous African languages targeted at the semi-urban and rural population across Africa.

The communication projects are expected to help counter disbelief and misinformation, and catalyse citizens actions and solidarity as well as combat stigmatisation.

The collaboration will focus on projects delivering vetted critical information from Africa CDC to Africans in remote areas using innovative and culturally sensitive messaging. This involves educating the public and ensuring fact-based information reaches even remote locations through such approaches as comics, animation, illustrations, infographics, interactive SMS and mobile apps.

The selected teams will be supported with grant funding of up to US$5,000 for research and design support. Proposed projects can be focused on one African country or multiple countries across the continent.

Benjamin Djoudalbaye, head of policy, health diplomacy, and communication at the Africa CDC, said that the collaoration aims to "enhance efforts of the Africa CDC towards educating the public and ensuring that the right information reaches even remote locations across the continent to avoid unnecessary panic and misinformation."

CcHUB Design Lab, based in Kigali, Rwanda, will collaborate with innovators to provide technical support using innovative digital and non-digital methodologies to ensure the mass messaging on the coronavirus reaches the semi-urban and rural population across Africa.

This collaboration is supported by the Joint African Union – German Cooperation on Citizens Engagement and Innovative Data Use for Africa's Development programme implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

African music platform MePlaylist attracts investment

MEPLAYLIST, AN AFRICAN solution to music consumption and promotion, has raised funding from global investors and partners like Mathew Knowles, father of artists Beyoncé and Solange Knowles.

Knowles believes MePlaylist offers music consumers in Africa a unique experience that is much more simplified for a continent where internet penetration and the use of smartphones is projected to experience significant growth.

The music platform comes with administrative royalty distribution, multiple plan types and subscription currencies and high-quality audio, plus DDEX standards for ingesting and reporting usage. These offerings, among others, have attracted global music stakeholders to the platform, making it possible to partner with music distributors globally.

MePlaylist users will also be able to curate their own playlists.

Microsoft partners with industry to unlock new 5G scenarios with Azure Edge Zones

MICROSOFT HAS ANNOUNCED that it has partnered with carriers and technology partners around the world to combine the power of cloud and 5G and bring Azure Edge Zones.

The move will enable new scenarios for developers, customers, and partners by providing seamless experiences with ultra-low-latency edge compute capabilities.

Azure Edge Zones are local extensions of Microsoft Azure that are ideal for solving compute, storage, and service availability issues by providing experience-driven resources to organisations – delivering consistent Azure services, an app platform, and management to the edge with 5G, to unlock new scenarios. Azure Edge Zones are available through Azure, with select carriers and operators, or as private customer zones.

"For the last few decades, carriers and operators have pioneered how we connect with each other, laying the foundation for telephony and cellular," said Yousef Khalidi, corporate vice-president, Azure Networking, Microsoft. "With cloud and 5G, there are new possibilities by combining cloud services, including compute and AI, with mobile high-bandwidth and ultra-low-latency connections. Microsoft is partnering with carriers and operators to bring 5G to life in immersive applications built by organisations and developers."

With Azure Edge Zones Microsoft is expanding its collaboration with several carrier partners across the world to bring the Azure Edge Zones family to mutual customers

Photo: Adobe Stock

Carriers, operators and networking providers can build 5G-optimised services and applications for their partners and customers with Azure Edge Zones.

later this year. Partners include Etisalat, AT&T, Vodafone business, Telstra, ROGERS, NTT Communications, SK Telecom, Proximus, Telefonica and many more.

Together, Azure, Azure Edge Zones, and Azure Private Edge Zones unlock a whole new range of distributed applications with a common and consistent architecture companies can use. For example, enterprises running a headquarters' infrastructure on Azure, may leverage Azure Edge Zones for latency-sensitive interactive customer experiences, and Azure Private Edge Zones for their remote locations.

Enterprise solution providers can take advantage of the consistent developer, management and security experience, allowing developers to continue using Github, Azure DevOps, and Kubernetes Services to create applications in Azure and simply migrate them depending on customer needs.

Ukheshe and Africa Assist launch COVID 19 support service Call4Care

MICRO-PAYMENT PLATFORM UKHESHE has collaborated with Africa Assist, a private medical assistance company, to provide coronavirus medical support for its users

Through Ukheshe, users will have access to information about the coronavirus pandemic, as well as a full 24-hour medical support service via phone. This service can be accessed by all Ukheshe users by selecting the emergency option #1 on 0104440040.

Photo: Ukheshe

Ukheshe has launched both health and insurance assist packages based on the dire need for cost-effective offerings within the unbanked.

Africa Assist said that all calls will be assessed by a nursing team utilising information and protocols established and overseen by a team of doctors and aligned to the department of health guidelines. Where there are suspected or confirmed coronavirus cases affecting the member, or a family member, a practitioner will outline what precautions to take and the management of the situation.

This will include strategies to manage self-isolation or isolation within families. Where necessary, members will be requested to contact a hotline or their doctors before arriving at a hospital or doctors' rooms.

Africa Assist will also provide counselling for those who feel overwhelmed or stressed about the situation.

Erick Vischer, Ukheshe head of compliance and insurance, said that Ukheshe has launched both health and insurance assist packages based on the dire need for cost-effective offerings within the unbanked: "In addition to launching new products, we are also offering all new registrations free emergency and hospitalisation access. This covers a private ambulance service, emergency evacuation and in-hospital medical expenses."

Vembu announces partnership with MBUZZ technologies

VEMBU, ONE OF the leading backup and disaster recovery solution vendors, has announced a partnership with MBUZZ technologies, a value-added reseller in the Middle East, Africa, and Europe region.

This partnership agreement allows MBUZZ to distribute Vembu's backup and DR product, Vembu BDR Suite, across the Middle East and Africa.

Photo: Adobe Stock

Vembu BDR Suite provides a comprehensive, secure backup and disaster recovery solution for diverse IT environments.

Fawwaz Al Shammari, CEO MBUZZ, said, "We are extremely delighted to have the innovative backup and replication vendor-Vembu in our distribution portfolio. In the context of data explosion happening across the region, our customers are demanding the most cost-efficient and robust backup and disaster recovery solutions. We are sure the new partnership with Vembu would cater to our customer requirements."

Nagarajan Chandrasekaran, vice-president of product management, Vembu, said, "With MBUZZ's expertise in data centre, telecoms and cybersecurity working in conjunction with Vembu's complete backup and DR solution for diverse IT infrastructure deployed in virtual, physical and cloud, we intend to provide affordable and enterprise-level functionalities to businesses that have a tighter budget and do not want to compromise on critical backup and DR features."

Events/Événements 2020

JUNE/JUIN			
20-21	**International Conference on Networks, Mobile Communications**	Dubai, UAE	https://csita2020.org/nmco/index.html
23-25	**Digital Africa Conference and Exhibition**	Abuja, Nigeria	www.digitalafrica.com.ng
25-26	**IDC CIO Summit**	Durban, South Africa	https://idcciosummit.com/durban
30 June - 1 July	**Securex West Africa**	Lagos, Nigeria	www.securexwestafrica.com
JULY/JUILLET			
9-10	**InnovX Africa**	Nairobi, Kenya	https://africa.innovxshow.com
17-19	**Kenya International Trade Show**	Nairobi, Kenya	www.growexh.com/kenyatradeshow
AUGUST/AOUT			
13-14	**Seamless Southern Africa**	Johannesburg, South Africa	www.terrapinn.com/exhibition/seamless-africa
SEPTEMBER/SEPTEMBRE			
6-9	**ITU Digital World**	Hanoi, Vietnam	https://digital-world.itu.int
14-15	**East Africa Com**	Nairobi, Kenya	https://tmt.knect365.com/eastafricacom/
16	**E-Crime & Cybersecurity**	Abu Dhabi, UAE	https://akjassociates.com/
19-20	**DIGITECH**	Bogotá, Colombia	https://feriadigitech.com/en
27 Sep - 1 Oct	**GITEX Technology Week**	Dubai, UAE	www.gitex.com
30 Sep - 1 Oct	**Digital Transformation Expo**	London, UK	https://dt-x.io/europe/en/page/dtx-europe

Communicating and educating

How African countries are supporting access to remote learning during the COVID-19 pandemic

SOME ENCOURAGING NEWS about the importance of telecommunications in the present health crisis comes from the World Bank, which is actively working with ministries of education in dozens of countries to support their efforts to use educational technologies to provide remote learning opportunities for students while schools are closed as a result of the COVID-19 pandemic.

In support of this work, the World Bank is cataloguing emerging approaches, by country, in an internal database. Some examples include Egypt, where the Ministry of Education and Technical Education (MOETE) has announced steps to implement distance learning and assessment during the school suspension that began on 15 March.

MOETE extended access to the Egyptian Knowledge Bank (EKB) to students, providing content by grade level and subject. The EKB can be accessed by mobile phone or computer.

There's also a digital platform that offers a communication channel between students and teachers, while online learning provider Edmodo will deliver remote instruction to the country's entire K-12 student body.

Kenya's Ministry of Education has designed online learning programmes and resources, which will also be delivered using radio, television, YouTube and other platforms. Learners can also access digital learning resources from the Kenya Education Cloud.

Well-known communications service providers are also getting involved. For example, Orange Liberia has announced that it is granting free access to online educational content to students and teachers while all schools and universities are closed, and South Africa's Telkom is offering education websites to provide cost-free access to learners.


Photo: Adobe Stock

Orange Liberia has announced that it is granting free access to online educational content to students and teachers.

In Libya local television stations will broadcast lessons for middle and secondary schoolchildren, while the Moroccan government has put together content in order to help students with their remote learning.

Finally, at least for now, the Tunisia-based Arab League Educational, Cultural and Scientific Organization (ALECSO) launched an e-learning initiative on 12 March. Ten North African and 12 Arab countries are to benefit from this initiative.

These efforts will surely not be the only ones. Telecommunications can – and will – do a lot to support continuity in a number of important areas during this crisis. ✆

Staying connected in a crisis

As the coronavirus storm grips the world, Jeremy Potgieter, regional director - Africa, Eseye, explains how emerging technology and data can reduce the impact of a pandemic.

Photo: Eseye

Jeremy Potgieter, regional director – Africa, Eseye

THE WORLD IS facing a once-in-a-generation crisis, its scale matched only by the Spanish Flu pandemic of 1918 to 1920. Citizens face huge restrictions on the way they live their lives, cut off from loved ones and their livelihoods threatened. Meanwhile, governments the world over battle with huge challenges trying to project and plan for the scale of the crisis, hoping to save as many lives as possible.

From a technology standpoint, the 2020 Coronavirus pandemic has focused the world's attention on how we're overcoming social isolation using technology, as well as how it's helping to reduce the scale of the tragedy and save lives.

From co-working apps allowing us to work remotely and online shopping orders to help us stay at home, to robots treating critically ill patients and deep cleaning the streets, the world, and people, are having to adapt fast in multiple ways – both big and small.

IoT has the power to connect the dots between the devices we use in our everyday lives, industry, healthcare, and our cities, for enormous benefit. But what specific benefits can IoT have on mitigating the impact of global pandemics – and what innovation needs to be adopted to ensure the world is prepared should it happen again?

Pain points in a pandemic

Firstly, it's important to look at the different pain points during a pandemic where human contact needs to be limited, and that IoT and emerging technology may be able to address. Some of these include:

- A lack of real-time data on the number of those infected, the rate the virus is spreading and how it's being transmitted in the environment. This data is vital in planning a response and choosing where to focus resources.
- The inability to remotely monitor and service key equipment and machinery, especially if it's part of critical infrastructure
- The economic impact of leisure, hospitality and retail businesses having to close their doors to the public and other industries having to ensure their staff can work remotely
- An overburdened medical system and the need to monitor patients remotely to balance care with the availability of beds
- The spread of the virus through physical contact and in public places

A connected response

So how could an IoT-connected world work to solve these challenges? While IoT devices may not be able to test potential carriers, they can help to spot potential symptoms of a virus. By gathering data on both a micro and macro level, governments can identify unusual trends before they become a problem and generate more accurate modelling. This can range from smart city cameras that detect the number of patients with high temperatures, to devices such as a smart ring that can identify coronavirus symptoms from a wearer.

Thanks to cloud computing, data from remote devices all across the world can be managed and interpreted quickly and then made accessible to scientists everywhere, to identify patterns and develop learnings to combat the disease faster.

Much of the world's critical infrastructure is unconnected or provides little in the way of remote diagnostics and status updates, let alone the ability to remotely fix these issues. In a pandemic, when physical contact needs to be limited and workforces are depleted, it's vital that the requirement of having engineers on-site is reduced to a minimum. Fully IoT connected devices enable fewer visits and a better ability to solve technical issues remotely.

The coronavirus crisis is forcing businesses to innovate at an incredible rate. Retailers and other non-essential businesses that rely on customers physically entering their stores or outlets are now having to rethink their business models in order to generate revenue. There are several ways IoT can help with this.

Smart lockers and innovative pick, pack and delivery methods for example, can ease the burden on eCommerce operations which are struggling to cope with the increased demand and create a 'zero-touch' approach that makes it easier and safer for business to manage in a quarantine or lockdown situation.

For food and beverage companies, smart vending machines, such as the Costa Express units, can be placed in critical stores such as corner shops, grocery stores and petrol stations which are still allowed to remain open. These companies are already future-proofing their devices with voice ordering and NFC payments to ensure the whole process is touchless. Connecting these devices using IoT allows for greater business intelligence gathering, live performance monitoring (and alerts to top up consumables to maintain service levels) and the ability to push marketing promotions to devices.

During a pandemic, healthcare services clearly bear much of the burden as their limited resources are stretched past capacity. IoT can help here in various ways. Remote patient monitoring, for example, means that patients can be monitored from their homes by doctors. One such innovation is Philips Motiva, an interactive TeleHealth platform designed to allow people with chronic conditions to be monitored from the comfort of their own home.

Reducing the need to touch is essential for reducing the spread of viruses. This means mobile ordering and contactless payments, or MachineSense's low-cost, infrared temperature scanning system that negates the need for a human to hold a temperature gun.

The MachineSense system can be installed in the form of a gate or retrofitted to be installed at entrance location for the automatic scanning of human body temperature. It allows for proper social distancing and it makes operation safer and less expensive.✆

The bigger picture

While the emergence of AI, IoT and other technologies is making it easier and faster to identify patterns, adapt to challenges and reduce social contact, gathering data on a global scale from people, healthcare devices and from the wider world is essential to limiting the potentially devastating impact of this and future pandemics.

The more data we gather on what happens when a pandemic occurs, the better we can become at modelling the outcome. It's essential that those with connected devices operating during the coronavirus outbreak make their data available to researchers, while governments need to look at ways in which existing data sources can be leveraged in the future to create a centralised monitoring dashboard that will inform their decisions.

For governments and businesses managing unconnected devices this should serve as a wake-up call that, in this modern world, knowledge and insight come through the joined-up approach of connecting devices remotely and analysing the data generated in a safe and meaningful way to protect the most vulnerable in society.

Genesys introduces Rapid Response to support remote working in 17 African countries

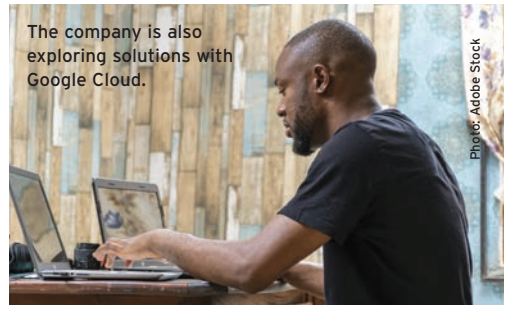
GENESYS, A CLOUD customer experience and contact centre solutions company, has launched a new Rapid Response offer to give any organisation free access to Genesys Cloud within 48 hours.

The company's Rapid Response offer allows organisations to launch a secure cloud contact centre with the fundamental capabilities needed to engage effectively with customers and colleagues from anywhere.

This includes support for automation and self-service, voice and email routing, interaction recording and employee collaboration tools. To make the transition easier for employees and supervisors, on-demand training and education is also included. In addition, Genesys is assisting organisations in controlling costs by waiving overage premiums resulting from unexpected spikes in customer inquiries.

"At Genesys, we have a responsibility to help however we can during this difficult time," said Tony Bates, CEO of Genesys.

"No matter what challenges organisations face, Genesys is committed to partnering with them to protect their employees, serve consumers and help contain the COVID-19 outbreak. Every action we take to stop the spread matters, but we cannot do it alone. Across every function and with support from our partners, the Genesys community is coming together to help organisations through this unprecedented situation," he added. The Genesys ecosystem is



The company is also exploring solutions with Google Cloud.

Photo: Adobe Stock

instrumental in this effort, providing services and guidance to facilitate business continuity during the COVID-19 crisis.

The company is also exploring solutions with Google Cloud and others, as well as implementation partners, including Avtex, ConvergeOne and NTT, which are critical in helping expedite deployments of Genesys Cloud. In addition, several Genesys AppFoundry partners are also extending their free trial period to align with Genesys Rapid Response.

Ken Landoline, principal analyst, customer engagement, Omdia, said, "The company is delivering a holistic solution and providing access to a community that delivers services, support, training, guidance and best practices so organisations are truly equipped to help employees and customers through this difficult time. I believe this is right on target and is the best course of action given the complexity of what businesses are up against."

Libyan bank chooses Temenos to drive digital transformation

TEMENOS, THE BANKING software company, has announced that Assaray Trade and Investment Bank (ATIB) has selected Temenos Infinity and Temenos Transact to power its digital transformation.

Temenos' cloud-native, cloud-agnostic banking platform will enable the bank to quickly launch new digital products for retail and corporate banking and improve the customer experience.

Temenos' packaged and upgradeable software will deliver operational efficiencies and improve ATIB's cost/income ratio, supporting the bank's growth.

The Temenos model bank approach also brings preconfigured country-specific functionality to help ATIB meet evolving regulatory requirements.

Facebook sets up COVID-19 information centres in 17 African countries

AS OF PART of Facebook's effort to help the global fight against COVID-19 by providing people with the latest news and information from trusted health authorities, the social media platform is expanding its coronavirus information centres to 17 more countries in sub-Saharan Africa.

The information centre is featured at the top of a news feed, that provides a central place for people to keep informed about the coronavirus. It includes real-time updates from national health authorities and global organisations such as the World Health Organization, as well as helpful articles, videos and posts about social distancing and preventing the spread of COVID-19.

Facebook users can opt in to follow the centre to get notifications and see updates in their news feed from official government health authorities.

The centre has already launched in South Africa. It will now be expanded to other sub-Saharan African markets such as Benin, Burkina Faso, Cameroon, Cape Verde, Chad, Côte d'Ivoire, Ethiopia, Gabon, Guinea, Kenya, Mali, Mauritania, Nigeria, Senegal, Seychelles, The Democratic Republic of Congo (DRC), and Togo.

Kojo Boakye, Facebook's head of public policy, Africa, commented, "We've built the information centres, in collaboration with national health partners, to ensure that people can get access to information from trusted health sources. The launch of the COVID-19 information centre on Facebook in more than 17 countries across sub-Saharan Africa aligns with our commitment to making accurate, timely information about the pandemic accessible to all communities.

Vodacom and Safaricom joint venture to accelerate M-PESA expansion

VODACOM AND SAFARICOM have announced that they have completed the acquisition of the M-PESA brand, product development and support services from Vodafone through a newly-created joint venture.

The transaction, which was first announced in 2019, will accelerate M-PESA's growth in Africa by giving both Vodacom and Safaricom full control of the M-PESA brand, product development and support services as well as the opportunity to expand M-PESA into new African markets.

Shameel Joosub, Vodacom Group CEO, said, "This is a significant milestone for Vodacom as it will accelerate our financial services aspirations in Africa. Our joint venture will allow Vodacom and Safaricom to drive the next generation of the M-PESA platform - an intelligent, cloud-based platform for the smartphone age. It will also help us to promote greater financial inclusion and help bridge the digital divide within the communities in which we operate."

Michael Joseph, outgoing Safaricom CE, said, "For Safaricom, we're excited that the management, support and development of the M-PESA platform has now been relocated to Kenya, where the journey to transform the world of mobile payments began 13 years ago. This new partnership with Vodacom will allow us to consolidate our platform development, synchronise more closely our product roadmaps, and improve our operational capabilities into a single, fully converged Centre of Excellence."

Nick Read, Vodafone Group's CEO, said, "M-PESA is hugely successful and enables millions of unbanked people in Africa to transfer money, pay bills and trade. It benefits communities and helps create a multitude of small and micro-business ventures. However, with the rapid increase in smartphone penetration, the evolution into financial services and the potential for geographical expansion, we believe the next step in M-PESA's African growth will be more effectively overseen by Vodacom and Safaricom."

A hub for pioneering safety and security solutions

Intersec, the Middle East region's leading trade fair for security, safety and fire protection, welcomed 33,872 visitors from 135 countries.

Photo: Messe Frankfurt

Intersec 2020's Intelligence Forums included conferences, roundtables and live demos.

TAKING PLACE FROM 19-21 January at Dubai World Trade Centre, Intersec welcomed industry professionals, government representatives, manufacturers and suppliers of safety and fire equipment to the Middle East as the region's commercial security market is set to grow 16 per cent a year to 2025 to be worth US$8.4bn.

With 1,100 exhibitors from 56 countries including two-thirds of the world's top 50 security manufacturers, long-established exhibitors were impressed by the show's expanding geographic reach.

Amine Sadi, regional channel sales manager, Milestone Systems A/S, a manufacturer of open platform IP video surveillance software, commented, "Several important potential clients arrived from markets we had not anticipated."

IDIS, a video analytics company, said Intersec 2020 stood out for the sectoral range of its visitors.

"There was an impressive range of serious buyers with interest in IDIS end-to-end video solutions from systems integrators and end users working in retail, banking, healthcare, hospitality and corporate sectors, from across the region and beyond. Visitors were genuinely interested in the latest technology, and wanted to drill down and ask how our video solutions will solve their problems and deliver," explained Jamil Alasfar, senior sales manager, IDIS Middle East & North Africa.

> **"Several important potential clients arrived from markets we had not anticipated"**

At Intersec 2020, IDIS announced a major video surveillance project it has secured with the Central Bank of Jordan. "This led to some significant conversations with buyers about our new AI offerings and latest cameras, which we expect to progress very quickly," added Alasfar.

Intersec 2020's Intelligence Forums included conferences, roundtables and live demos hosted by the Future Security Summit, the Fire Safety Conference, Government Summits and the Intersec ARENA.

Andreas Rex, show director for the Middle East at organisers Messe Frankfurt, said, "We are committed to bringing the best brains in the business to Dubai to help ensure the regional industry benefits from the very latest knowledge which impacts the wider security, safety and fire protection fields which now involves a high degree of automation, AI, machine learning and biometrics developments."

Intersec will return from 24-26 January 2021 at Dubai World Trade Centre and will be co-located with Light Middle East and Prolight + Sound Middle East, which are also organised by Messe Frankfurt Middle East. ✆

More information is available at: www.intersecexpo.com

How BSS can support new service provision in Africa

Traditional business support systems (BSS) – systems designed to bill voice calls and SMS – have long been the norm in Africa. But that's changing. As Paul Saunders, GVP sales and services, Openet, tells Vaughan O'Grady, increasingly business support systems need to be able to quickly develop, support and monetise new value add and content offers in Africa – and to do so cost-effectively.

Photo: Adobe Stock

Monetisation of services will be key to success for South African operators.

BUSINESS SUPPORT SYSTEMS (BSS) help an operator to run its business operations relating to customers – that can include managing things like rating, orders, billing, fraud and customer relations as well as revenue assurance and business intelligence.

However, as Paul Saunders, GVP sales and services with Openet, a leading digital BSS company that provides charging, policy and data management solutions, points out, many mobile operators in Africa are still preoccupied with maintaining their 3G assets and rolling out 4G services.

"This means," he says, "that up until recently, traditional BSS – the systems designed to bill voice calls and SMS – have been somewhat 'fit for purpose'. But that's changing. Many African operators are hedging their bets on being able to roll out new services quickly, and so we're seeing a lot of operators review their existing BSS offering."

The BSS market in Africa has also been quite disrupted of late. As Saunders points out, many Chinese equipment vendors installed legacy BSS platforms when deploying infrastructure in the region, and have since decided to pull out of the BSS space altogether. "That's left many operators with traditional systems that are no longer fit for purpose and that aren't being supported by the vendor who installed the technology.

"So," he continues, "clearly further BSS investment needs to be made, particularly if we are to see African mobile operators keep up with increasing subscriber demand for new services."

> **"Further BSS investment needs to be made if we are to see African operators keep up with subscriber demand for new services"**

It's true that the needs of African operators are certainly different from operators in developed markets. Many are still rolling out 4G services, and few have 5G high on their priority list. "But," says Saunders, "that will change – and quickly."

While mobile coverage only reaches around a quarter of the total population in Africa, smartphone adoption has doubled over the last three years. That means that there are more subscribers to cater for, all with their own needs and demands. This will require African operators to think carefully about their BSS solutions.

As Saunders puts it: "Do they have the right systems to be able to launch and deploy new services quickly? Are legacy systems holding them back from exploring new 4G, and eventually 5G, revenue opportunities? Can their existing BSS stack support the complexity that 5G will bring? Ultimately, for African operators, it's about being prepared for what's to come while still being able to serve their subscribers today."

How African operators launch new services will also play an important role in their adoption. Most African subscribers are extremely cost-conscious, and so will be unwilling – or unable – to spend money on a lot of data. The answer? "If operators are to reach wider audiences and entice subscribers to

consume more content and data," says Saunders, "they must do so in innovative and creative ways – for example, through ad-funded or zero-rated services."

He offers the example of South Africa, where Vodacom has launched the Vodacom Flex service, which allows subscribers to 'snack' on limited internet services when they run out of data. He explains: "Flex is backdropped by advertisements, which in turn generate advertising revenue for the operator and increase brand engagement. Monetising these new services will be key as African operators seek to grow their subscriber base and extend their 4G offering."

Of course, in many countries margins on voice and data are tight and they're going to get tighter. How can operators deal with this? Firstly, Saunders suggests, by looking at what customers are buying and at what they want to buy. "The option of having additional value-add and content services as part of a mobile bundle helps increase ARPU and customer loyalty," he points out. "BSS must quickly develop, support and monetise new value-add and content offers – and do so cost-effectively."

This is where another challenge needs to be faced – managing and controlling costs. In some legacy BSS every time an operator wants a change, such as a new plan supported, this can mean a change request, which means time and cost. "Operators with legacy BSS need to examine the total cost of ownership and look at newer, more agile alternatives that will enable them to drive new revenues from digital services, but will also be much more cost-effective."

Openet itself is helping this to happen in a number of countries – like South Africa, where digital services like media streaming and online banking are markedly growing in popularity. How is the Openet digital BSS portfolio helping operators to roll out and monetise such services?

"Monetisation is key to any operator's success," Saunders says. "In South Africa, the rapidly growing economy has created a market perfectly primed for new digital services, but these often come at a cost – a cost which not all can afford."

Operators in South Africa must therefore think of new ways to monetise services – ways that don't interfere with their margins and still allow subscribers to consume digital content and access digital services.

For Openet, enabling all of this is about giving operators the agility and flexibility to launch and 'trial' new services quickly, and in response to subscriber trends and demands. Saunders explains: "That flexibility comes by offering different ways to deploy BSS capabilities – for example, operators can choose to plug in and add on services, rather than complete a full BSS replacement. Flexibility and agility also come by placing control back in the hands of operators, allowing them to self-configure and have real-time insights that will be key when upselling, cross-selling and creating new sources of revenue."


Photo: Openet

Paul Saunders: "We're seeing a lot of operators review their existing BSS offering."

"For African operators, it's about being prepared for what's to come while still being able to serve their subscribers today"

He continues: "We also believe it is important to offer solutions that work today, and that will continue to work in the future. We offer solutions that are API and microservices-based and that are developed using DevOps approaches. This ensures we are always innovating and keeping pace with the latest technology advances. This also gives operators the reassurance that our BSS portfolio will meet their 3G and 4G – and soon 5G – needs."

Openet also has a presence in Egypt. Saunders says: "When we began working with Orange Egypt the operator had an established base of over 30 million mobile customers. The company wanted to expand its services to provide a full convergent service offering, including fixed and mobile (3G/4G) broadband services. In order to provide optimal fixed customer experience, Orange Egypt wanted to deliver broadband controls, real-time notifications and quota management."

Orange Egypt deployed Openet's Policy Manager product for both its fixed and mobile broadband services, which gave the operator centralised control and management for all its services. "Our Policy Manager acted as the foundation on which to deliver convergent bundling and hybrid broadband services, as well as offer management to enable upsell and revenue creation from convergent service offers," says Saunders.

Policy Manager is also deployed with Moroccan operator inwi, supporting offers across its primary brand and its new digital-first brand 'win'. Saunders explains: "inwi was able to use our existing policy and control solution without the need to procure a new digital platform to quickly launch the new digital-first brand."

The provision of real-time software solutions and services is another part of the Openet offering. Saunders explains that real-time data can help operators improve subscriber engagement and is also key to creating upsell opportunities. By using both historical and real-time data, operators can gain insights into specific subscriber activity – such as how they are using their data and how often they are in touch with customer care centres.

"This then allows the operator to provide context-sensitive 'solutions' or offers, in accordance with what the subscriber has just experienced," says Saunders. "For example, if a customer has gone over their allowance on previous trips abroad, the operator can use this opportunity to offer complimentary data roaming passes." He sums up: "Real-time insights increase relevance and personalisation, and in turn, improve how subscribers perceive their operator."

Of course, real-time software solutions and services in particular are increasingly using and benefiting from AI, ML and advanced data analytics. How are such technological advances helping BSS?

"Some operators are taking real-time BSS data and using AI, ML and advanced analytics to enable context-sensitive offers and automated care services. As the upsell offers are personalised and context-sensitive they get a higher uptake rate than traditional marketing of offers."

But thats's not all. "Also some operators are starting to look at using real-time BSS data to deliver personalised advertising in their TV services. This is opening up a new revenue source from advertising – and as it's contextual and personalised the operators can get a higher response rate and therefore charge a higher premium to advertisers." ✆

Openet is a leading digital BSS company that provides charging, policy and data management solutions. It works with many of the world's most innovative service providers to enable insight, monetisation and control of data services. www.openet.com

How well do you know your customers?

For years the valuable data customers supplied every time they used their phones was largely underused. However, advances in artificial intelligence, machine learning and data analysis are turning data on customer behaviours and habits transported on carrier core networks into a powerful business asset. In fact, as Albrecht von der Recke, chief comercial officer of fonYou explains, carrier infrastructure is ripe for innovation.

Photo: Adobe Stock

A better understanding of customer habits and preferences can increase customer value.

Cloud technology enables carriers to enjoy benefits that are not possible with on-site physical infrastructure

CARRIER CORE NETWORKS are currently designed to transport data efficiently and safely, but they're not engineered to extract and harness customer data at an industrial scale, both of which are prerequisites for the application of machine learning.

Why is this important? Put simply, these networks are filled with data from customers accessing social networks, messaging apps, e-commerce sites, payment apps and so forth, but the data isn't used as the powerful business asset that it can be.

Don't forget too, that the amount of data on these networks will only grow further as more users manage their lives on smartphones, with data-hungry apps and increasingly interconnected devices. The urgent need to take proactive measures will only increase.

Although more carriers are becoming aware of these facts, today less than one per cent of the data generated by smartphone users running through networks is structured, analysed, visualized and used to understand users.

But what if telcos could analyse all this data to create in-depth knowledge about their customers? For instance, this customer data could be used to provide the optimum service bundle, content and handset for each user in real time, and ensure uninterrupted customer connectivity. There are many use cases that the true optimization of rich customer data can generate, such as data security and digital credit product provision.

In fact this technology does exist, enabling carriers to meet unique, specific customer needs at any point in time. However, for carriers to tap into and harness the huge commercial advantages of data-driven innovation, they have to efficiently process and analyse a massive amount of data in real time. This equates to billions of customer events every single day.

This scope of processing isn't possible with traditional infrastructure and legacy data mining systems, as they quickly run into capacity limitations. Many data mining tools are still run on

basic statistical frameworks that aren't able to process high data volumes in real time. A paradigm shift in managing data is required. New cloud and machine learning technologies are enabling this paradigm shift, and equipping carriers for optimized management of an enormous flow of data.

New cloud technology enables carriers to enjoy a host of exceptional benefits that are not possible with on-site physical infrastructure. These include:

- Technical and analytical capabilities and efficient A/B testing that are unique to the cloud.
- Operational agility that equips carriers to innovate much quicker. This is because they no longer depend on the limitations that come with on-site infrastructure and are not beholden to the innovation cycle (which usually involves an approximately six-month turnaround time).
- Maintenance and update responsibilities that are transferred to cloud providers, such as Google and Microsoft. These companies tend to be experts in associated fields such as system performance and data security.
- Capacity needs that are adaptable and malleable to carrier needs. For instance, when launching a new product with on-site infrastructure, companies must make an educated guess as to their capacity requirements. If the reality diverges from the estimation, it represents a considerable cost. With the cloud, this issue doesn't exist.

Carriers are now responding to this challenge. Many of them around the world are already integrating technologies in the cloud and the latest advances in AI to digitize their business model. The results speak for themselves, with an average of between three and five per cent ARPU increase, and higher customer retention and satisfaction levels reported.

A technology that enables this has been developed by fonYou, the carrier technology company, which has partnered with telcos globally to deploy its platform, iCarrier. This platform is designed to harness the full power of technologies in cloud and machine learning. iCarrier is helping carriers in countries across Africa, Europe and Latin America to improve digital product and service distribution performance.

This is clearly a process that is not just relevant to highly developed communications markets. One particular fonYou telco partner tasked fonYou with creating a digital, fully automatic customer engagement process to accelerate airtime distribution. This carrier operates in an emerging market with a low banking penetration level and a high prepaid percentage of its customer base. Most of its customers run out of balance weekly and take one or two days to purchase a new bundle or to top up.

This time period represented a big lost revenue opportunity. Also, most customers would carry out top-ups in bricks-and-mortar stores, with only a small percentage using the carrier's website. This meant that the carrier had very little knowledge about customer preferences as the vast majority of recurrent airtime purchase happened through third parties.

One of the biggest tests for fonYou was to process a massive amount of data from a network in real time at a reasonable cost. When fonYou connected its system to the network for the first time, it found, to its surprise, that it had to process more than two billion data events per day.

Many data mining tools are run on frameworks that aren't able to process high data volumes in real time

This is clearly a huge number of events – and the processing operation was far from simple. The system had to filter out the relevant data points and apply machine learning techniques to:

- Create in-depth knowledge about every customer
- Predict user behaviour based on the algorithms
- Execute the right action in real time

The technological challenge was enormous. It required a combination of different solutions in order for these goals to be met. This included an infrastructure that could process and scale fast enough for the massive data volumes; an ecosystem that could combine data processing, AI, data visualization, and other such technological requirements; and data security at all levels.

So how did fonYou go about achieving its aims? It implemented a four-step process to achieve the carrier's target.

- Dismantle the existing commercial process
- Digitise the customer engagement experience
- Hyper-personalise offers to maximize conversion rate
- Push the most contextualised offer to customers in real time

The result in key performance indicator (KPI) terms was that fonYou achieved KPI gains across the board by automating the entire process, hyper-personalizing product offers based on customer context, and selecting the customer's preferred engagement channel combined with optimal timing.

This meant replacing 'one-size-fits-all' mass messaging and the non-personalized offers that the carrier had previously used to promote customer purchases, which had low success rates.

The result was a whole new user experience across the customer base – and one that is strongly relevant to emerging markets, where margins can be tight and understanding customer behaviours better can offer important revenue opportunities. ✆

fonYou was founded in 2006 to build the mobile carrier of the future. The company achieves this by using AI and machine learning technologies, transforming its carrier partners into data-driven, digitized businesses. It aims to transform MNOs into completely digitized organizations that achieve actionable levels of understanding for every single customer. www.fonyou.com

The benefits of knowing your customer.

Diagram: fonYou

Bridging the cultural gap between Africa and the world

Not long ago, bringing African programming to the world would have been difficult on two counts: limited programming and limited platforms. Not anymore. Today, Demand Africa brings vast output together with SVOD to reach a massive audience, as Dean Cates of The Africa Channel Inc tells Vaughan O'Grady.

DEAN CATES IS VP of digital strategy & marketing for The Africa Channel, a television network offering viewers more than 1,600 hours of HD award-winning television programming from the African continent — shows never before seen on US television.

But the success of The Africa Channel has led to further innovation in the form of Demand Africa, a subscription streaming video on-demand (SVOD) service that hosts hundreds of hours of original and acquired lifestyle content, scripted TV series and movies. It's a home, as the company's literature puts it, where African TV series, movies and documentaries are mainstream anywhere you go.

So what has changed? How and when did the team behind The Africa Channel feel that there was a market for an SVOD service?

Dean Cates explains that The Africa Channel has been broadcasting since 2005 in the US and Caribbean into select markets. He explains: "Our mission with the channel was to open a daily window into modern Africa and help demystify the continent and its people. Much of the mainstream media coverage of Africa is negative and our hope was to present positive depictions of Africa's vibrant culture, people, food and entertainment to offset this."

> "It is our goal to present the breadth of Africa"

Of course, technology and viewing habits have changed a lot since 2005. In recent years, the carriage on cable TV has shrunk due to cord-cutting – viewers cancelling their subscriptions to multichannel subscription television services available over cable or satellite, dropping pay television channels or reducing the number of hours of subscription TV.

The result? "We saw a growing gap in the marketplace for African entertainment. We launched our digital SVOD platform in order to continue our mission and expand it globally to bridge the cultural gap between Africa and the world."

When did technology make worldwide-accessible SVOD African programming a realistic concept? Cates says: "In 2017 we became aware of several companies offering 'OTT in a box-solutions' that could substantially cut down on the development and ongoing maintenance costs of building and launching apps. Where these solutions limited some of our flexibility of features they did reduce our upfront costs and allowed us to launch quickly across multiple platforms. Perhaps more importantly, [these solutions] allowed our organisation to continue to focus on media as a business without having to build the infrastructure of a technology company."

We spoke recently to IrokoTV, whose focus is Nigerian programming. It's a big market, but Demand Africa's programming appears to be pan-African. So how does Demand Africa curate the shows – especially given the vast amount of programming now available?

"That is what makes us stand out from other services," says Cates. "It is our goal to present the breadth of Africa. We have built relationships with some of the largest producers and distributors on the continent and attend local markets and festivals to source content for Demand Africa. Much of the content we curate is based on the strength of story and quality of production that can appeal to audiences outside of Africa."

Which leads to the inevitable question: which countries tend to have the most popular content? This is audience-led, inevitably. "We are presenting titles which are very popular in their countries of origin to expats as well as new audiences. With our largest markets being the US, UK, and Canada our popular content tends to follow the largest Nigerian, South African and Ghanaian expat groups in those regions. We have some travel and cultural titles from East Africa and throughout the diaspora that are popular as well."

Continued on page 18

SVOD brings African entertainment to the world.

Photo: Africa Channel

Dealing with direct carrier billing fraud

As Android smartphones becomes more widely used, the advantages of the open system can be exploited by fraudsters targeting both end users and advertisers. Geoffrey Cleaves, head of Secure-D, an anti-fraud platform offered by mobile commerce company Upstream, explains to Phil Desmond how such fraud happens – and how to combat it.

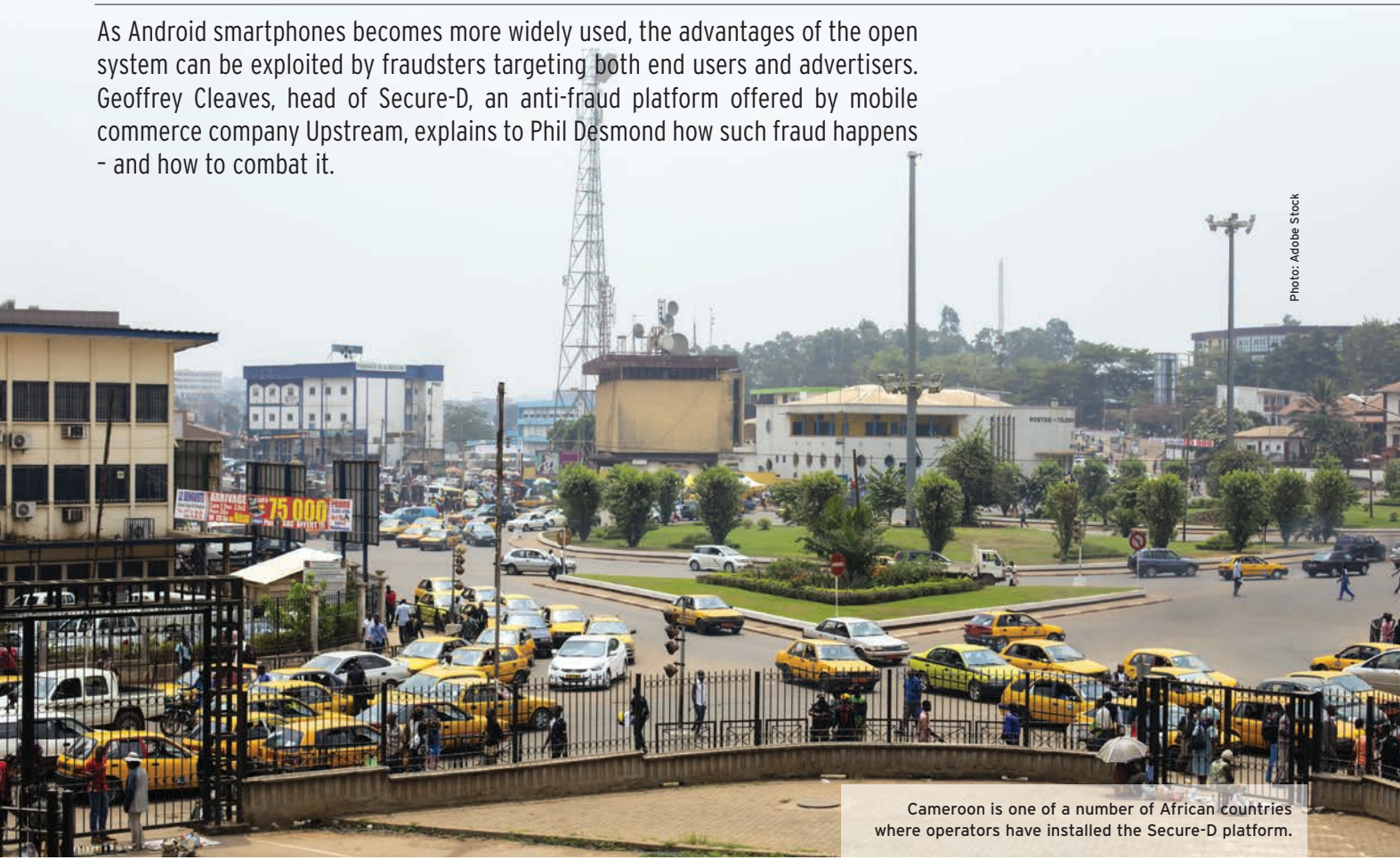


Photo: Adobe Stock

Cameroon is one of a number of African countries where operators have installed the Secure-D platform.

UPSTREAM IS PROBABLY best known as a leading mobile commerce platform, accelerating m-commerce for consumers in high-growth markets. But it also offers protection against fraud through a security platform called Secure-D that provides end-to-end protection – from ad clicking to subscription to user billing.

The obvious questions in this context are: what sort of security threats do you report or guard against in the mobile space? How serious is the threat? And how it could affect African end users? Geoffrey Cleaves, head of Secure-D, explains that the Secure-D platform guards against fraudsters attacking the operator's billing systems, which can cause subscribers to be overcharged. "It is known as direct carrier billing fraud (DCBF)," he explains, "and our platform prevents mobile users from being subscribed to premium services without their knowledge."

Many of the harmful apps which carry out this type of fraud perform advertising fraud and steal personal information. Ad fraud works when apps send automated 'clicks' to the advertisers. The advertisers pay the app developers for these 'customers' that have been sent to their service from the app. "Our platform is able to spot this unusual activity and prevent it from happening," says Cleaves. But not only is this an attack on advertisers.

> **"Our platform prevents mobile users from being subscribed to premium services without their knowledge"**

"Harmful applications often harvest personal data and ship this information to foreign servers for later use," he says.

So how do the threats differ in quantity and type between developed and developing markets? Essentially, says Cleaves, "Secure-D operates in data-centric markets where we guard against DCBF occurring on the web".

Importantly, however, in developing markets, subscribers are more dependent on their mobile for web access and in turn the operators rely more heavily on value-added premium subscriptions. In addition, in developing markets, with low penetration of traditional banking services, the operator's billing system becomes a trusted payment mechanism, even for pre-pay customers. "Therefore," Cleaves says, "the potential for DCBF is somewhat greater in developing countries." Is 4G more problematic? "In terms of connections there is no difference between 3G or 4G in the fraud we study."

Of course in regions such as Africa, margins are tight and competition is fierce, so one might regard security as an afterthought. That may have been the case once, but Cleaves thinks it's much less likely now. "DCBF empties subscribers' wallets or credit – and that makes them angry. Operators might be faced with the cost of refunding credit and, regardless of that

gesture, will still be blamed by subscribers for allowing this to happen. That anger tends to hurt their net promoter scores [an index which measures the willingness of customers to recommend a company's products or services to others] and in competitive markets that usually results in churn and a loss of market share."

Inevitably, the move to low-cost smartphones, while important for opening up data markets (and opportunities) for end users, may bring its own problems. Some of the low-cost devices provided by manufacturers often suffer from poor quality control are therefore much more likely to come preinstalled with malware. "Additionally," says Cleaves, "low-cost devices will be unable to run the latest, security-patched operating systems that guard against some known vulnerabilities. This leaves them open to fraud which the higher-end devices would be protected against."

As for 2G devices, these are not inherently more secure (and may have the operating system issues mentioned earlier), but they do tend to be more voice-centric and not used for data as much as 3G or 4G devices.

The Secure-D platform has been installed by operators in South Africa, Nigeria, Cameroon, the DCR, Tunisia, and Egypt and naturally Upstream would like to see this grow. Worldwide, the platform has been installed by more than 30 operators in 20 countries and last year processed 1.7 billion mobile transactions and blocked 98,000 malicious apps.

Much of Upstream's work highlights Android phones? Why is this? Cleaves explains: "The problem is much greater on Android phones. Apple's system for its iPhones is effectively closed – you can really only download apps from the iTunes store, and apps don't make it onto the store without a great deal of testing and Apple approval." The fact that the Android system, by contrast, is more open has been good for the growth of the system, has encouraged its adoption, and also helped small developers get their apps to market.

"However," says Cleaves, "it has also created opportunity for bad actors, especially when apps removed from the official Google Play app store can still be downloaded from third-party app stores. The open nature of the Android ecosystem makes it harder for Google to police it centrally in the way that Apple can with the iPhone."

Fraud will continue to evolve. Luckily, so will fraud detection.

"Big data analytics is of paramount importance for fraud detection solutions as the threats are continuously evolving and cannot be prevented by static rules alone. Optimising fraud detection is an ongoing process. We are constantly validating and updating our existing fraud detection models, as well as developing new ones to incorporate. We use a wide variety of models and techniques, including the three major modelling types of supervised, unsupervised and semi-supervised."

And that's where ML and AI come in. "Depending on the set-up – anomaly detection or historical pattern recognition – these approaches are implemented via deep learning or through the latest machine learning algorithms. Analysing the outcomes from the different models determines whether an action or request is valid or potentially fraudulent." ✆

The Mobile Ad Fraud 2019 Report, which focuses on hijacked devices, depleted data, unwanted charges and stolen personal information that affect billions of mobile users, is available for free download now at www.secure-d.io

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As for formats, movies and lifestyle content tend to be most popular. One of the big advantages of the SVOD model is accessibility. Demand Africa is currently available and optimised for the web, mobile (Apple and Android), Amazon Fire TV, Roku TV and Apple TV: it is possible to stream across all devices. In addition, says Cate, while mobile phones are important to this business model, "we find a lot of our users are streaming via connected TVs".

That said, there are many challenges for the on-demand model – not least competition from other web-based companies, piracy and bandwidth requirements. How does Demand Africa manage these?

"There are a lot of content and services out there competing for audiences' time and attention," Cates agrees. However, he says: "As an independent and small business, we don't see ourselves as competing with larger services and their marketing budgets. Our goal is to build a digital destination for audiences who are looking for premium content that reflects the best of Africa. We aren't trying to be all things to all people. Our focus is to present modern Africa in a culturally relevant and positive manner, while building a pipeline for African creators to reach new audiences and fairly monetise their work."

"We have launched a download-to-go feature to help viewers avoid high data fees when they are mobile streaming out of Wi-Fi range"

And it seems to be going well, with plans to expand or enhance the content offer already under way. "For our subscription-on-demand services we have recently launched new features, including a download-to-go feature to help viewers avoid high data fees when they are mobile streaming out of Wi-Fi range."

And Demand Africa continues to innovate. The company has also just launched a free ad-supported TV channel into its platform and is expanding distribution on third-party platforms globally. Cates explains: "This new content offering is designed to help increase Africa's influence to new audiences that may not be familiar with the content – or may be unable to commit to the subscription service currently." ✆

The company is eeking and open to partners who can help to expand its distribution and raise awareness for Demand Africa. For more information about how important a service focused on presenting Africa in a positive manner is, especially in America, check out www.theafricanarrative.org/africa-in-the-mediain-the-media

Photo: Africa Channel

Africa – on smart TVs, mobile phones and other devices – wherever you are

Connecting with a new generation

Dinesh OP, technical manager Africa at Siemon, tells Communications Africa why, and how, Wi-Fi 6 is going to change wireless communications - and in particular how it is going to change approaches to Wi-Fi cabling.

ARE YOU READY for Wi-Fi 6? As Dinesh OP, technical manager Africa at Siemon, which specialises in low-voltage infrastructure solutions and services for data centres, LANs and intelligent building, explains, it's a major – and positive – change.

"This," he says, "is because Wi-Fi 6 will initially deliver four times faster average throughput than Wi-Fi 5, with data rates expected to be in excess of 5 Gb/s."

Wi-Fi 6 also supports a much larger volume of mobile devices in large public environments such as airports, trains, auditoriums and shopping centres, because it can operate at either 2.4 GHz or 5 GHz, unlike Wi-Fi 5 devices that transmit exclusively in the 5 GHz spectrum.

"Wireless access points (WAPs) also benefit from Wi-Fi 6," he adds, "because they connect to the Ethernet network with two ports – rather than the traditional one port – via high-bandwidth copper cabling which delivers higher levels of remote power to these WAPs."

So what could be the disadvantages of Wi-Fi 6, both in general and from the point of view of an infrastructure provider like Siemon?

"Wi-Fi 6 devices receive higher levels of remote power (known as Type 2 PoE – or power over Ethernet) via the copper cabling infrastructure. These increased power levels can lead to a rise in temperature inside cable bundles, which inhibits overall performance." Therefore, Siemon recommends installation of thermally stable shielded cabling systems, such as shielded Category 6A and Category 7 cabling, which are qualified for mechanical reliability up to 75°C.

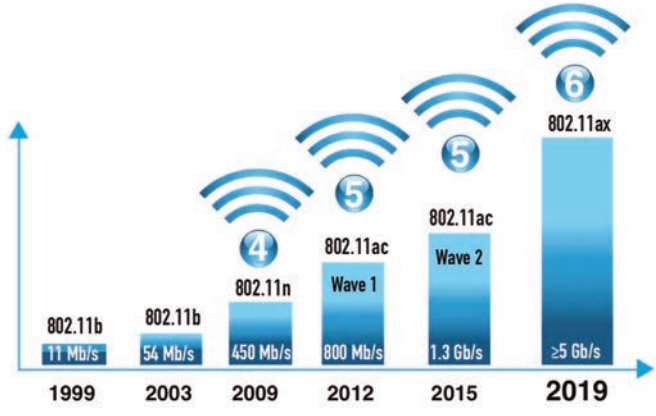


Diagram: Siemon

The evolution of enterprise Wi-Fi.

OP adds, "Equally, when Wi-Fi devices are connected or disconnected under load, electrical arcing might occur that can damage connector contacts." In this case Siemon recommends installing IEC 60512-99-001-compliant connecting hardware which ensures that contact seating surfaces are not damaged when plugs and jacks are unmated under remote powering current loads.

Cabling is important in this context because the advancements that come with Wi-Fi 6 can only be fully realised if the wired cabling uplink infrastructure is properly specified, designed and deployed. As OP points out, key cabling criteria, in addition to those already mentioned, include:

- Providing two class EA/category 6A or higher-performing horizontal cabling drops to each WAP to facilitate link aggregation, which will be required by devices connecting into the Ethernet network with two ports or having greater than 5 Gb/s data rates
- Installing a minimum of 10 Gb/s-capable balanced twisted-pair copper or multimode optical fibre backbone to support Wi-Fi 6 uplink capacity
- Utilising a grid-based zone cabling architecture to accommodate additional WAP deployments; this allows for rapid reconfiguration of coverage areas and provides redundant and future-proof connections.

"Wi-Fi 6 supports a much larger volume of mobile devices in large public environments"

"In addition," says OP, "the majority of public places, like hotels and malls, have less budget available for IT infrastructure; more of the budget is allocated to the interior and guest experience. Existing buildings wired with Category 6 or lesser-grade cabling would require an upgrade to better support Wi-Fi 6."

When upgrading the cabling infrastructure, the challenge for system integrators is to avoid damaging the interior of the building – and to avoid disturbing the public and occupants – while also providing a safe environment. OP adds: "In greenfield installation (compared to brownfield), a cabling upgrade will largely depend on budget approval rather than the actual execution of the cabling works. In both cases, designing the mounting location of the wireless access points will be a key exercise as Wi-Fi 6 coverage areas are limited."

The bad news – for now – is that, with less than 40 per cent internet penetration in Africa, the acceptance of new technology across the continent is moderate. As 50 per cent of Africa's mobile subscribers presently are from within just five of its 52 countries, OP suggests that Wi-Fi 6 markets in Africa will depend on the acceptance of fewer than 10 countries.

Meanwhile Wi-Fi is not standing still. In fact, Wi-Fi 6E is new Wi-Fi Alliance terminology for IEEE 802.11ax devices capable of 6 GHz operation. This capability will reduce latency and, according to Broadcom, support 1.4 Gb/s bandwidth at seven-metre distances – even with obstructions.

Op says, "Wi-Fi 6E devices are expected to become available quickly as only small changes to the antennae and front ends on existing first-wave Wi-Fi 6 devices are required. The cabling recommendation of two minimum category 6A channels to each WAP is applicable to Wi-Fi 6E." He adds: "There's no doubt that future capability and capacity needs will have us talking about Wi-Fi 7 soon." ✆

About Siemon

Established in 1903, Siemon is an industry leader specialising in the design and manufacture of high-quality, high-performance low-voltage infrastructure solutions and services for data centres, LANs and intelligent buildings. www.siemon.com/africa

A share of the future – the evolution of neutral hosts in the 5G era

Towers? Fibre? RAN equipment? DAS? Small cells? How far can infrastructure sharing go? Much further than it has so far, says Mark Keenan, CEO of independent wireless experts Real Wireless. In fact, he argues, it's time for sharing to become mainstream.

MOBILE OPERATORS IN all markets are facing a combination of challenges. These include price competition, the rising cost of rolling out new networks and offering broader coverage, availability/cost of spectrum and rapidly increasing usage of mobile data. In developing markets, where national digital strategies often prioritise democratising connectivity, such pressures can blunt the ambition of individual operators and suppress innovation and economic growth.

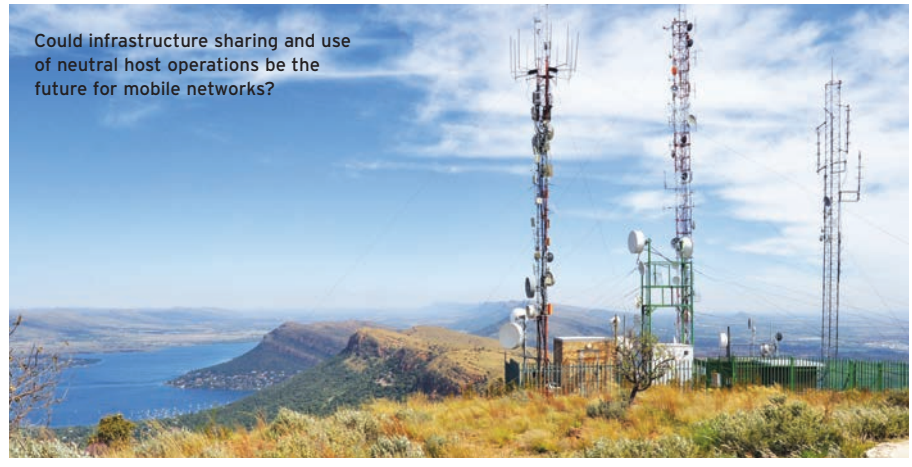
Such challenges are encouraging progressive governments' regulators to look at ways of driving increased levels of asset sharing, so that MNOs can reduce costs.

These trends account for the rise and rise of viable business models in the network infrastructure segment, with tower companies (towercos) and 'neutral hosts' emerging as critical players in the telecommunications ecosystem. An efficient infrastructure services market that allows MNOs to offload operations and maintenance of towers and other infrastructure into sharing and neutral host operations enables operators to focus on their core business and enable more innovation into the infrastructure segment, thus increasing their ability to invest in a greater diversity of competitive infrastructure and services.

Neutral hosts can improve the business case for extending coverage to rural and remote users, and into indoor environments – traditionally the most difficult areas for individual MNOs to address profitably. The neutral host business model is somewhat different to that of the MNOs, with neutral hosts creating a portfolio of sites to provide rural, urban and in-building coverage capable of delivering mobile services to all the MNOs' customers in that country.

> **"Neutral hosts can improve the business case for extending coverage to rural and remote users"**

For this approach to be truly compelling, a minimum number of MNOs need to participate in the site sharing of assets. This can be as few as two MNOs in some cases but it does vary depending on whether the asset being shared is a tower, rooftop, small cell or in-building DAS. The viability of a neutral host will depend on this key metric of occupancy ratio.



Could infrastructure sharing and use of neutral host operations be the future for mobile networks?

Photo: Adobe Stock

Increasingly, networks will become denser, and specialising to take into account latency and reliability characteristics of the location both to boost capacity and performance in urban areas and to improve indoor coverage – especially important for industrial and city environments. The greater the number of sites, the higher the risk that building and operating the networks will be unprofitable for a single operator. A supply of neutral host infrastructure can significantly enhance the MNO business model and accelerate the availability of ubiquitous coverage and capacity, including indoors, for all operators and to the benefit of all mobile device users.

Some neutral hosts may specialise in deploying infrastructure for certain industrial sectors (such as manufacturing), or for cities, integrating these build-outs with those of power, backhaul and data centre resources.

Access to sites and rights of way must be streamlined and simplified to enable affordable build-out in all environments. Neutral hosts further accelerate this process as they only need to negotiate access for build once, simplifying the situation for landlords, city authorities and other stakeholders.

Another advantage is that neutral host providers help to guard against any one operator achieving significant market power, since they lower barriers to competitors.

While sharing neutral-host-operated infrastructure – such as towers – has become the norm, operators are starting to consider more extreme approaches to sharing, to make the deployment of future-looking communications infrastructure quicker and cheaper. These approaches may include pooling resources in terms of sites, fibre and cloud systems, and, possibly, the active radio access network (RAN) equipment (where regulators allow this).

At Real Wireless, we have been advising governments globally to forge progressive regulation for the 5G era. If there is a common theme in diverse markets, it is that it is critical to quantitatively analyse through recognised models and understand the commercial as well as the socio-economic implications of regulatory decisions.

We regularly interact with neutral host companies when working with our venue and city clients and are researching business models such as neutral host through the AutoAir and 5G-TOURS projects. Our business model and business case analysis convinces us that this approach can help to realise the benefits of sharing across a number of facets of communications infrastructure. However, we should not forget that national digital strategies can founder through lack of support at a local and community level. Thus, for progressive regulation – around sharing in particular – to be effective requires governments and their regulators to bring regional – and even municipal – authorities with them. ✆

Real Wireless is the world's leading independent wireless advisory firm. www.real-wireless.com

Investing across the ecosystem

Sami Yousif Mohamed, CEO and group president of Sudanese telecommunications and internet service provider Sudatel, tells Communications Africa about the Sudanese communications market and Sudatel's plans for expansion.

IN OCTOBER 2019 Sudatel Telecom Group appointed Sami Yousif Mohamed as CEO and group president of Sudatel, the leading telecommunications and internet service provider in Sudan, which is majority-owned by the Sudanese government. Mr Yousif has worked for Sudatel since 2013, most recently as the group's executive vice president for financial and administrative affairs. Previously, he was director of finance in the Arab Investment Company, which is owned by the governments of 14 Arab states.

Sudatel is not just present in Sudan. It also provides both mobile and fixed (voice and data) services to businesses, residents and ISPs in Mauritania and Senegal, as well as wholesale services to international carriers.

But of course Sudan is still a developing market in its own right and one where, as Mr Yousif explains, voice is still the dominant service.

"However," he says, "data take-up currently stands at 29 per cent but is expected to reach half the population by 2023." But there is less than one per cent fixed broadband penetration.

But smartphones do not dominate the market – yet. "As in most emerging markets, basic and feature handsets still have the lion's share of device ownership," explains Mr Yousif. "However, smartphone ownership in Sudan is increasing consistently at a 30 per cent annual growth rate and expected to reach 52 per cent by 2023", as device manufacturers continue to produce ever-more-affordable devices.

"4G is our focus at the moment as this is where most of our growth will come from"

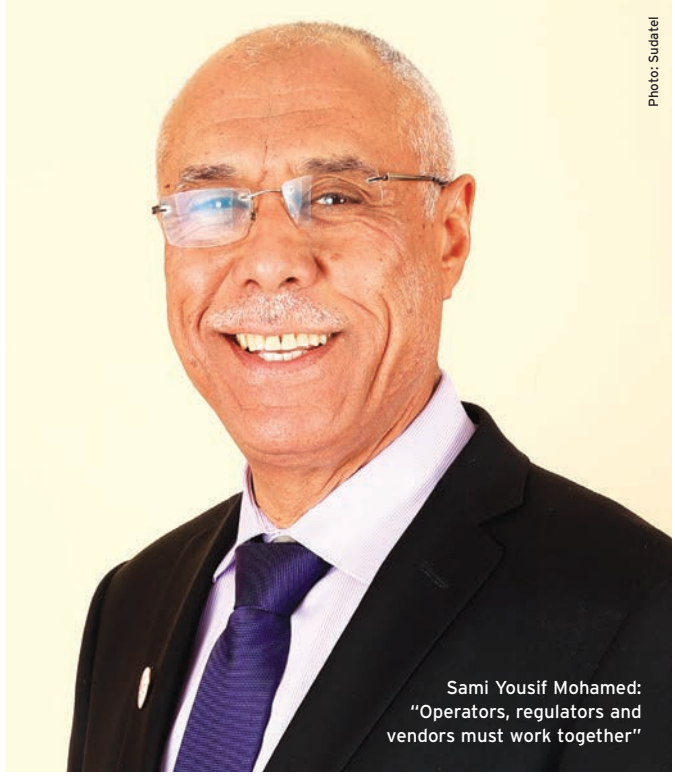


Photo: Sudatel

Sami Yousif Mohamed: "Operators, regulators and vendors must work together"

Although 3G has 32 per cent penetration and 4G is currently at eight per cent, Mr Yousif says: "4G is our focus at the moment as this is where most of our growth will continue to come from over the next few years."

However," he adds, "communication technologies tend to leapfrog each other so, of course, we will be studying the rollout of 5G in more advanced markets in Africa. Or maybe a completely different technology will come along in the meantime. The important thing for Sudatel is to master the different technologies and ensure that we maximize the benefits of all our future investments. We have a specific programme designed by the Ministry of Communication and the Regulation Authority in Sudan, in collaboration with the operators, to tackle this issue."

And the more basic problem of coverage is also being addressed. "In March our wholly owned subsidiary Expresso Telecom, Senegal's third largest MNO by subscribers, launched its first commercial 4G network and announced that it will be upgrading its 3G network to address poor data speeds and service availability experienced in some areas of the country. This will increase 3G network coverage from 45 per cent to 70 per cent of the population."

But these are not the only areas being addressed by Sudatel. Mr Yousif says: "We are investing across our ecosystem. The expansion of our fibre network is vital in delivering reliable and speedy connectivity and providing a platform to roll out innovative digital partnerships to deliver rich infotainment and smart cloud-based services to our customers."

As for addressing specific segments, "we believe that different digital trends will pick up across multiple segments. For consumers, we believe that fintech services and digital entertainment content such as gaming, video, music and education will start to flourish – and we are actively evolving our product portfolio to meet future demand."

Of course, telecommunications is, more than ever, vital to effective government and thus e-government and smart city services are of interest as, says Mr Yousif, "they directly impact on the performance of the government and make interaction with residents easier".

It's not just about government of course. "SMEs and large businesses will be demanding more cloud services and some IoT vertical services. We will continue to invest in our award-winning data centre, which has been a cornerstone in the company's transformation into a full ICT player."

He adds: "Digital startups are a very interesting segment and we feel a great responsibility toward enabling them to grow and materialize their promising ideas. We are actively engaged with some of the key incubation and startup hubs and looking forward to adding value to this community."

A busy time then for the new CEO? "It is an absolute honour to be leading Sudatel. After the historical political change that took place in Sudan last year, we are all looking forward to living in a region that is more stable and ready to embrace the technology that can help improve all of our lives." ✆

From kiosks to corporations

DPO Group, a leading African payment service provider (PSP) operating in 19 countries across the continent, has developed technology to enable over 100,000 businesses to securely make and receive payments online with all currencies and payment methods. Eran Feinstein, CEO of DPO Group, discusses the challenges and opportunities offered by a vast and growing market.

PAYMENT SERVICE PROVIDER DPO Group was founded in Kenya in 2006. Today, it serves 100,000 customers, enabling private and corporate customers to transact securely online and offline. Its online merchants include over 60 airlines, thousands of hotels, restaurants, travel agents, tour operators and other players in the e-commerce sector. They accept all currencies and payment methods, including mobile money. Eran Feinstein, CEO of DPO Group, told Vaughan O'Grady how DPO is meeting its aim of supporting financial inclusion and economic development on the continent.

Vaughan O'Grady, editor, Communications Africa: Why Africa? Why is there a need for effective payment processing solutions in this market?

Eran Feinstein, CEO, DPO Group: The progress and prosperity of entrepreneurs and small and medium-sized enterprises (SMEs) is vital for a country's economic growth and this is particularly true in developing countries. The ability for businesses, large and small, to make and receive payments quickly and securely in Africa, just as they can in other parts of the world, boosts revenues, creates jobs and fosters business growth – and this impacts positively on broader economic growth. Enabling fast and secure digital and online payments also enhances intra-regional trade as it becomes increasingly easier for companies to pay each other across borders through a single payments platform such as ours.

Vaughan O'Grady: What size of businesses do you work with? What is the introduction and sign-up process?

Eran Feinstein: At DPO, we work with businesses of all sizes, from a small kiosk in Kigali selling artefacts to global corporations, such as Uber, DHL or Booking.com. Ninety per cent of our merchants across the 19 countries in which we operate are SMEs and, as well as e-commerce, we're particularly experienced in the airlines, travel, transportation and food delivery arenas. We're also experiencing increasing demand for the payment of utility and educational bills online for greater convenience for the end user. Offering smaller businesses in these sectors the same range and flexibility of payment methods as larger businesses has the potential to level the playing field significantly and boost SMEs' growth potential. The sign-up process* is quick and easy.


Photo: DPO

Eran Feinstein: "We work with businesses of all sizes".

> **"Increased investment into reliable digital infrastructure ... has the potential to revolutionise the African payments sector"**

Vaughan O'Grady: What are the challenges of guaranteeing a cross-border payments environment – both technical and regulatory?

Eran Feinstein: The key regulatory areas to address to ensure a secure cross-border payments environment are anti-money laundering (AML) and global sanction lists, which are mandatory for any business dealing with payments. Given the complexity and variation of each country's regulatory landscapes, it is also vital to define and set a clear know-your-customer (KYC) policy based on local regulation.

On the technical side, the main challenge affecting the payments sector in Africa is the lack of consistent digital infrastructure on the continent to guarantee easy cross-border payments. However, we're seeing increased investment into reliable digital infrastructure, from both governments and the private sector, which has the potential to revolutionise the African payments sector and strengthen economies across Africa.

Vaughan O'Grady: How do you enable high levels of security given a varied and largely independent clientele scattered over a wide area?

Eran Feinstein: Security is the number one priority for any payments service provider and DPO invests heavily in security, fraud prevention and risk management to ensure a safe payments environment which meets international standards. DPO holds PCI DSS Level 1 Certification, the highest level of certification as set out by the card industry standards, in each of the countries in which it operates. We have also developed highly sophisticated fraud prevention and risk management platforms in-house which are managed around the clock.

Vaughan O'Grady: You accept payments both online and offline. Can you explain this?

Eran Feinstein: Online payments involve supplying merchants with full website integration or access to our e-commerce website to allow them to sell their products and services online, as well as putting the technology in place to allow companies to accept payments from both customers and other businesses online.

While online payments are an increasingly important payment method, especially against the backdrop of the growing e-commerce sector in Africa, offline payments remain a preferred payment method for many businesses and customers where the actual payments take place within a store. To support this, we provide merchants with a mobile payments app to allow them to accept card payments, as well as mobile money and QR codes.

Vaughan O'Grady: How important are mobile payments as a part of your offering, given the strength of the mobile payment market in Africa? How do you enable mobile payments?

Eran Feinstein: DPO Group has been offering merchants the ability to accept mobile money payments since 2008, and this has grown significantly in the last few years. We're seeing

Continued on page 24

Spending time with mobile phones

The figures for mobile money services take-up in Tanzania since its introduction in 2008 are impressive, showing a major growth in financial inclusivity across the country. But, as Mwangi Mumero points out, there are still challenges to be overcome.

TANZANIAN MOBILE MONEY users transacted US$3.56bn in June 2019 compared to US$3.20bn in May 2019, a US$378mn rise, according to the Tanzania Communications Regulatory Authority (TCRC).

By June 2019, there were 43,749,086 operational SIM cards, with mobile money accounts rising from 22,756,359 in April to 22,957,515 in June. Vodacom's M-Pesa is the market leader in terms of number of mobile accounts and the amounts transacted.

A total of US$2.11bn was transacted via M-Pesa in June, representing 58.7 per cent. In second slot was Tigo Pesa which transacted US$952bn – representing 24.3 per cent of the market share. Third place was taken by Airtel Money, which transacted US$528bn, accounting for 14.7 per cent of the market share.

Since their launch in 2008, mobile money services in Tanzania have continued to make strong advances among the populace of a country where few people have bank accounts.

According to the GSM Association (GSMA), mobile money penetration has reached 65 per cent in urban areas and about 25 per cent in rural areas. In fact at least 32 per cent of the country's 52 million population use mobile money exclusively for financial services.

Data shows that at least 43 per cent of the population use mobile money to pay bills and transfer cash to friends and family as well as paying business transactions. "The customer's unimpaired ability to use mobile money services rather than travel long distances to bank branches to make transactions reduces transaction costs and increases efficiency in the economy. This is given that only a small minority of the population have access to formal banking services," noted the GSMA report.

Overall, there are six mobile money providers that include the leaders Vodacom with M-Pesa, Tigo with Tigo Pesa, and Airtel with Airtel Money. The other three – Halotel with Halotel Money, Zantel with EZY Pesa and TTCL – have about five per cent of the market between them.

Vodacom Tanzania also has an operator-to-operator international money transfer capability thanks to its partnership with Safaricom in Kenya. Both Vodacom Tanzania and Kenya's Safaricom are partly owned by South Africa-based Vodacom group Limited, a subsidiary of the UK's Vodafone.

Photo: Adobe Stock

Rural business has benefited from mobile money services.

"Mobile money penetration has reached 65 per cent in urban areas and about 25 per cent in rural areas"

Recently, Vodacom Tanzania also partnered with WorldRemit to enable M-Pesa customers to receive money directly from friends and family abroad.

With the WorldRemit app, Tanzanians living in over 50 countries – including the UK, US and Canada – can send cash to their friends and family with M-Pesa accounts. Previously, such money transfers were sent via banks involving high fees and taking several days to process.

"This partnership with WorldRemit enables us to tap into the global payment network and help customers receive remittances into Tanzania from more countries around the world", said Epimack Mbeteni, Vodacom Tanzania, M-Pesa director.

This is not a small sum: the World Bank estimates that Tanzanians abroad sent home US$439mn in remittances in 2017. In fact WorldRemit research shows that switching from offline to digital remittance could free up a further $825 million worldwide.

Increasingly, rural communities that were previously unbanked have found their way into the mainstream, sending and receiving money via simple handsets. "We can now receive cash from our working children in Dar es Salaam within minutes. We can also receive payments from our investment group via the phone," observed Rehema James, a retired farmer who lives near Tarakea Township, overlooking Africa's highest mountain, Kilimanjaro.

Ms James, together with many of her village friends, has never had a bank account. They are now glad that they can save money in their mobile accounts to help them budget for their needs. "Clearly, we now feel ourselves part of the nation in terms of banking service provision. We are as good as any other Tanzanian," she adds, highlighting the effect mobile money accounts have had in transforming rural lifestyles.

Research carried out by the International Monetary Fund (IMF) indicates that financial inclusivity in Tanzania rose by 42 per cent to a staggering 58 per cent between 2009 and 2013.

The World Bank also noted that while only 19 per cent of the population has access to formal bank accounts, this figure more than doubles to 39 per cent when mobile accounts are involved.

Financial inclusion has now expanded to 65 per cent of adults aged 15 years and above,

according to the InterMedia Financial Inclusion Insights (FII) tracker survey.

The survey found a strong annual growth in mobile money, with registered users rising from 55 per cent in 2017 to 63 per cent in 2018. Over the same period, 80 per cent said they had used at least one of the mobile service providers compared to 62 per cent in 2017. The number of unregistered users – who rely on agents for using mobile money over the counter, rose from 13 per cent to 17 per cent of adults in the 2017-2018 period.

However, analysts suggest that the main challenge to Tanzania's mobile money growth is its taxation. Currently, mobile money is charged an excise tax of 10 per cent. With the tax being charged on transfer fees, sending small amounts – often common among rural-based persons – impacts heavily on poor communities. It imposes a huge burden on poor consumers, potentially reversing the financial inclusion gains made in the country.

"Removing the tax on mobile money charges could improve the affordability of these services, enhancing financial inclusion," notes the GSMA report.

A study conducted in Singida, Tanzania by Nicholaus Senson, field operation engineer, Nokia Solutions and Networks, in collaboration with V Venkatakrishnan of the Department of Development Studies, School of Social Sciences, University of Dodoma, Tanzania, on challenges facing mobile money services found other issues.

Billions of dollars every month are exchanged through mobile services in Tanzania

Photo: Adobe Stock

The study, entitled *Challenges of mobile-phone money transfer services' market penetration and expansion in Singida District, Tanzania,* found that there are significant challenges affecting market penetration and expansion and regular use of mobile money.

Lack of financial capital problems for agents, unavailability of network coverage and regulatory barriers to mobile money payment systems were leading to low penetration levels in Singida and Tanzania.

The report recommended the reduction of transaction charges, ensuring widespread availability of agents in rural areas, stability of the network, regular supply of electricity, and training and information to users as necessary measures to increase usage, penetration and expansion of mobile phone money services.

Nevertheless the government has committed to continue supporting the growth of the mobile money industry in the country. "The government is committed to ensure that mobile financial providers continue to be effective players in the future and that they are able to provide the innovations and investments necessary in technical and business dynamics in the financial market", said Mr Albers Cesari, assistance manager, oversight and policy, at the Bank of Tanzania (BoT), during a recent workshop organised by Vodacom Tanzania to look into the trends and developments shaping the mobile money industry in Africa. ✆

Continued from page 22

an increasing number of mobile money payments on our platform, both domestic and cross-border. For instance, people in Kenya can now book and pay for a trip in Tanzania without needing a bank account. While this is subject to mobile money transaction limits, there's no doubt that the evolution of mobile money across Africa is a game changer.

We partner with local banks and with mobile operators, such as Airtel, MTN, Orange, Safaricom (M-Pesa), Tigo and Vodafone, to enable our merchants to accept payments via mobile money, alongside other payment options such as credit and debit card, QR code, and bank transfer. Over the last two years, we've seen a 500 per cent increase in mobile money transactions, and we anticipate that, by 2021, 50 per cent of transactions made through DPO's platform in Africa will be carried out using mobile money.

Vaughan O'Grady: Do you see growth and technological improvements continuing to drive payment processing in Africa? In other words, is this a market with great promise for companies like yours?

Eran Feinstein: There is no doubt that technological improvements will continue to disrupt and evolve the way we pay and how payments are accepted and it's an extremely exciting sector to be in right now. The growth of mobile money means that the unbanked population can be financially included – often for the first time. The DPO Virtual Card, backed by Mastercard, is an example of an innovative solution that improves businesses' ability to transact within Africa and internationally as it removes the need for a physical card or bank account, improving cash flow and opening up African businesses to other markets.

Online card payment.

Photo: DPO

In terms of DPO's own growth plans, we have recently launched operations in three francophone African countries and we're aiming to be operating in 28 countries across Africa in the next two years. ✆

**The DPO sign-up process is quick and easy via this link: https://www.dpogroup.com/africa/register-to-dpo/. It can take merchants as little as 48 hours to get set up and start accepting payments.*

Reviewing the RAN

Whether yours is a 2G or 5G network, the fundamentals of planning, building and operating a radio access network (RAN) have not changed as much as you might expect. However, as Gavin Hayhurst, head of product marketing with analytics, assurance and optimisation solutions provider TEOCO, tells Phil Desmond, RAN management and monitoring have changed quite a lot.

Photo: TEOCO

Gavin Hayhurst, Teoco: "Many of our 5G-capable tools started life as 2G tools."

THE RADIO ACCESS network (RAN) has been a fundamental part of network planning since 2G first came on the scene. Have the needs and capabilities – and of course challenges – of the RAN evolved since then?

Analytics, assurance and optimisation solutions provider TEOCO has been working with RANs for nearly three decades. Surprisingly perhaps, as Gavin Hayhurst, head of product marketing at TEOCO notes, RANs haven't changed as much as you might think.

As he says: "At a very top level, the fundamentals of planning, building and operating a RAN network have not changed since the first mobile networks. Over 25 years ago, our ASSET solution was being used to plan some of the first 2G networks, ensuring subscribers had coverage and capacity to make calls and use the SMS services on offer. Now, it's being used to plan 5G networks for services like streaming video or interacting on social media."

But 4G and 5G have changed RAN solutions provision in some ways. Hayhurst explains: "Perhaps the biggest change has been the expectations of the subscriber. A mobile network is no longer a nice to have; it is fundamental for people to go about their daily lives. They just expect it to work all the time and everywhere. Each new technology addition has added complexity alongside new capabilities; the addition of 4G made video streaming, video calling and other high-bandwidth applications feasible – and 5G promises to extend that even further."

When it comes to 4G and 5G, leveraging data analytics for monitoring and improving the network is probably the most fundamental shift. However, this is less to do with 4G and 5G technology, and more to do with the advances in data analytics that have happened in parallel.

"Suddenly there were new tools and methodologies that provided a more efficient approach to monitoring and operating a RAN network," he said.

> **"Perhaps the biggest change has been the expectations of the subscriber"**

At the same time, many networks in the developing world still have a strong 2G/3G component. Can TEOCO's services benefit them? "We've evolved our tools portfolio to support new technologies and meet the challenges they present," says Hayhurst. "Many of our 5G-capable tools covering planning, optimisation, and service assurance started life as 2G tools. These all support the full range of technologies from 2G to 5G, making them equally applicable for an operator in Africa with a 2G/3G network as they are to a global operator deploying 5G." And of course operators with 2G/3G networks have a tool that can support them when they move to 4G and, eventually, to 5G.

Of course, he agrees, recent advances in AI, data analytics and machine learning have enhanced areas like network analytics and optimisation. Clearly, AI, data analytics and machine learning have become buzzwords because they promise to deal with the data volumes and complexity of today's networks — aspects of which are making human-driven processing and

Advances in AI, data analytics and machine learning have enhanced areas like network analytics and optimisation.

Photo: Adobe Stock

analysis unfeasible. Cheaper and more available computing power, plus advances in applied maths also make them more feasible solutions than they were in the past.

Nevertheless, Hayhurst suggests that "we're still moving through the hype cycle", but adds: "There are a number of companies that are actually using these technologies to make meaningful advances in how RANs are managed. At TEOCO we have a number of initiatives – these include using machine learning for automated root-cause analysis, alarm clustering and predictive alarms within our service assurance solutions, and using machine learning to enhance geolocation of subscriber events and automatically identify problem areas within our optimisation tool."

So will the hype prove true? "It is still early days but AI, data analytics, machine learning and automation will have a significant impact on RAN monitoring and management in the coming years as the technology evolves and vendors and operators get to grips with it."

A possibly more immediate challenge involves the growth of small cell solutions, HetNets and densification as 4G and 5G roll out. Will RAN economics and performance also be affected?

Hayhurst agrees that all operators are looking to drive down cost and improve network performance wherever possible. Almost universally, operators want to reduce opex. However, he says: "This means that technologies will only be widely adopted if the business case makes sense. A number of years ago it was predicted that small cells would be widely adopted, but the business case simply wasn't there and so the technology was never widely adopted."

> **"Each new technology addition has added complexity alongside new capabilities"**

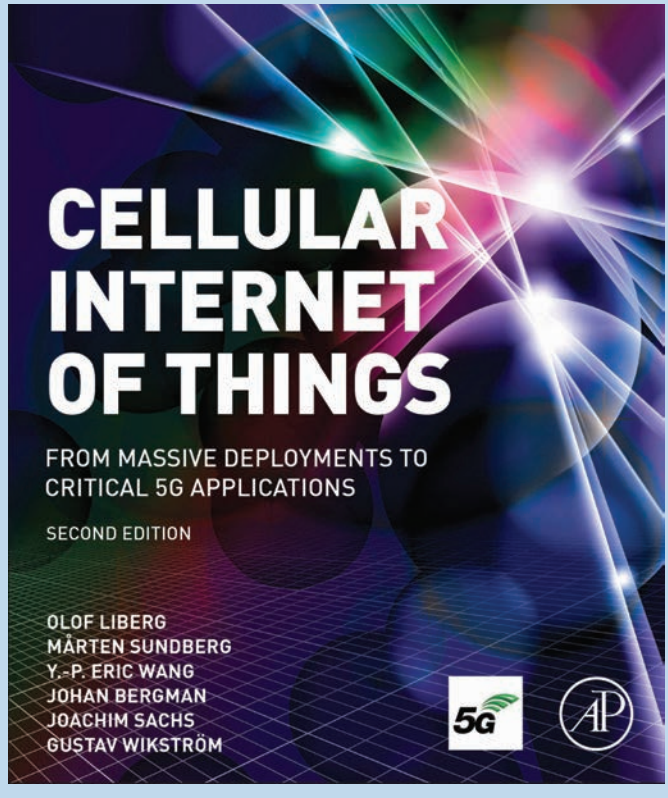
That said, he adds: "Densification should happen to enable mmWave 5G where cell sizes are very small and to address the continued growth of data consumption by customers. But the extent to which it happens will need to tick the boxes of a business case, and other technologies such as mMIMO could help improve 5G mmWave cell range. If that is a more financially attractive prospect it could negate some of the densification that happens."

Hayhurst agrees that some aspects of the RAN will continue to evolve. This will include new technologies such as 6G, and new architectures such as virtual RAN (vRAN) and cloud RAN or centralised RAN (C-RAN) and probably initiatives such as OpenRAN. Thus "from TEOCO's perspective as a supplier of software tools that plan, assure and optimise networks, we will evolve our tools to support these new network architectures. But," he adds, "for us, the fundamentals will likely remain the same. Operators will still need to plan the most cost-effective high-performance network they can and then operate and improve that network in the most efficient way possible. We need to ensure our tools always give them those capabilities, whatever the network architecture or technology."

TEOCO's portfolio of business, network and device solutions has helped more than 300 of the largest service providers in over 100 countries run their networks more efficiently and profitably. Its RAN solutions cover all stages of the network lifecycle, from planning and configuration to optimisation. (www.teoco.com)

Book review: the IoT – past and future

THE INTERNET OF Things (IoT) is transforming the information and communications technology industry. It embodies the vision of connecting virtually anything with everything and builds on a global growth of the overall number of connected devices. Standards bodies, in particular the Third Generation Partnership Project (3GPP), are helping to support, and further boost, this growth.



Now a book – Cellular Internet Of Things: From Massive Deployments To Critical 5G Applications – is available that sets out to introduce, characterize and describe the new technologies that together are defining the concept known as the Cellular Internet of Things. The authors – experts from leading networking and telecommunications company Ericsson – focus on a number of important areas, including an overview of early standardisation work dating back to 2G, 3G and 4G, right up to 3GPP's most recent work on the 5G New Radio and technologies supporting massive machine-type communication (mMTC). There are also sections devoted to the design details and performance of LTE and 5G New Radio ultra-reliable low-latency communication (URLLC) and drone communication.

But it's not all 3GPP and standardisation; the book also looks at wireless IoT systems operating in unlicensed frequency bands. Practical concerns are also addressed: there's a chapter summarizing the descriptions and performance evaluations provided earlier in the book and giving the reader guidance on how to best select an IoT system for meeting mMTC and cMTC (critical machine type communication) market demands. The book ends with an attempt to offer an overall picture of IoT technology and takes a look into the future of this transformative new direction for telecommunications.

While this is clearly not a book for beginners, it will prove useful to many readers who would like a background to the evolution of one of the world's most important new technologies and a guide to where it might be taking us.

The price of Cellular Internet Of Things: From Massive Deployments To Critical 5G Applications is $115.00. You can purchase the print or ebook for a 15 per cent discount of $97.75, or the bundle, which includes both print and ebook, at a 40 per cent discount of $138.00 via the Elsevier website. Contact elsevierpr@knbcomm.com for more information.

XS Wireless Digital systems offer versatility and a small form factor.

Photo: Sennheiser

Now hear this!

Audio is a vital component of electronic news gathering (ENG), and today's equipment is reliable, rugged, lightweight - and very often wireless, as Tobias von Allwörden of audio equipment specialist Sennheiser tells Ron Murphy.

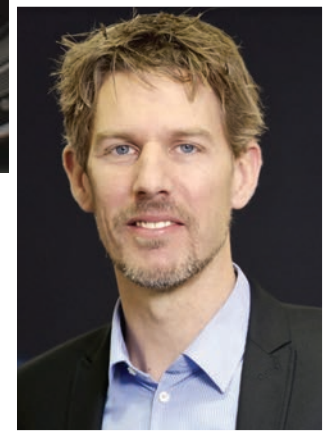


Photo: Sennheiser

Tobias von Allwoerden: "Wireless sound equipment has become a standard in many industries"

HOW MUCH HAS audio equipment used for electronic news gathering (ENG) changed in recent years? A lot, says Tobias von Allwörden, head of portfolio management – audio for video at Sennheiser. Sennheiser, now celebrating its 75th year in business, is an audio company specialising in the design and production of a wide range of products, including sound equipment for broadcasters.

The demands on today's news teams – speed, flexibility, efficiency – in turn make demands on the sound equipment they use. So what type of sound equipment would a modern, professional news team tend to use for ENG? Von Allwörden says: "Very generally speaking, ENG equipment needs to be reliable, rugged and lightweight. Wireless microphones are usually the equipment of choice, including on boompoles." [a boompole is an extended pole with a microphone on the end].

Given these needs how much has ENG sound equipment changed in recent years? A lot is the simple answer. But, as von Allwörden explains, the reality is far from simple.

"Today," he says, "you will find a wider variety of wireless microphone systems doing the job, than, say, 15 years ago." And wireless transmission has changed too. "While ENG was dominated by wireless microphone systems working on licensed UHF frequencies, you will now additionally find license-free systems and smartphone solutions."

As he explains: "Wireless sound equipment has become a standard in many industries because of the convenience it offers. No cables to run, no cumbersome checks. Wireless mics allow you to move freely and do more creative stuff, which is also an asset in ENG."

As for the size of the team, well, 'team' may not be quite the right word. "The trend is increasingly towards the one-man show: one person looking after video and audio – and the script too. This requires audio equipment that is ready to work in a snap and does not require any extra adjustments. An example would be our AVX systems that work in the license-free – and rather empty – frequency range of 1.9GHz. Microphone transmitter and camera receiver are simply powered up and then linked, and are ready to go. No gain adjustments are required once the system is set up for your camera."

It's not necessarily expensive either. "Affordable entry-level systems have made their way into ENG – for example 2.4GHz systems like XS Wireless Digital. Due to its versatility and small form factor, this solution can be used on digital single-lens reflex cameras (DSLRs) as well as on smartphones."

And, of course, the changing face of personal communications has influenced product development. Von Allwörden says: "There's the dedicated smartphone solutions, such as the Sennheiser Memory Mic, which is also very popular," adding: "The smartphone is the camera that is always with you."

Computerisation and improved processor performance have changed pretty much every form of technical equipment in recent years – and the audio business is no exception.

As von Allwörden explains: "Miniaturisation is key in many areas, and certainly in ENG. With cameras becoming smaller and more lightweight, or the complete shift to smartphones as a camera, it has become mandatory that also the audio equipment needs to be small and easy to use."

So, given the speed of change in recent years, the obvious final question is where is technology likely to take ENG sound equipment in the coming decade?

Following up his earlier comment von Allwörden says: "Miniaturisation will continue, and ease of use and versatility will remain equally important. There is a strong demand that audio equipment fits various use cases. Let's say you are using your DSLR on one day, but then your smartphone for some B-footage [extra imagery used to enrich the story you're telling and to allow greater flexibility when editing the next day], and you do not want to change your audio equipment. You want to use the same mic and the same wireless gear."

But that's far from the end of the story. "And what comes after that?" asks von Allwörden. He answers his own question thus: "We are getting rid of the receiver and directly transmitting wirelessly into the camera!" ✆

Photo: Sennheiser

AVX systems work in a license-free frequency range.

Kenyan startup launches AI data platform to curb coronavirus pandemic

KENYAN HEALTH TECH startup Afya Rekod will launch its AI and blockchain-built consumer-driven health data platform to support global efforts to curb COVID-19.

The portal allows people across the world to store their health data in real time, with a special focus on COVID-19. This system is built to help users store their own health data, access health information and connect to health service providers, with expectations to launch in July 2020.

The founder and CEO of Afya Rekod John Kamara said: "Afya Rekod is a medical data storage platform that allows patients to store their health records and the medication they take as well as keep journals of their statuses and that of their kids and families. The platform is AI-driven and uses various AI modules to help detect abnormalities, detect early outbreaks and monitor mobility and evolution of diseases via timely data analytics."

"Africa and most of the third world countries have limited doctors and access to health care services. Lack of patient data in real time makes the problem even more damaging to both patients and health service providers across the continent. Over 65 per cent of Africans live in rural communities that are not connected and are off grid in terms of access to health care services. This is the problem we are trying to solve," explained Kamara.

The ongoing COVID-19 pandemic has shown the world once again that centralised health management systems that rely solely on people walking into a health facility are not sufficient. The world needs decentralised systems that enable people to update their own records, anytime, anywhere, in multi formats.

"We are fast tracking to launch the platform four months ahead of its time to enable the world to capture real-time data that will hit map areas where the corona infections are growing and monitor the growth in real time by collecting user generated information from millions of users across multiple geographic locations to allow for sufficient data analysis in support of the global efforts to curb the disease," stated Kamara.

Afya Rekod is currently in discussions with various entities across governments and developing partners to explore how their efforts can be accelerated urgently for COVID-19.

Tecno unveils Camon 15 series phone

Photo: Tecno

MOBILE PHONE MANUFACTURER Tecno has released its new camera phone, the Camon 15 series, through an online launch event, the first of its kind in the African smartphone sector.

The new Tecno Camon 15 has enhanced sensitivity and definition by installing the Sony camera chip which is highly rated in the smartphone industry.

Compared to most of the chips used in a smartphone camera, the Sony camera chip can detect more refined details and produce a high level of quality in the images it captures. With the chip's sensitivity, photos can still maintain precise details after being zoomed in even eight times.

Tecno created TAIVOS (Tecno artificial intelligence vision optimisation solution) to bring ultra-clear night shots. The ultra night lens allows for better edge correction and multi-frame noise reduction, producing cleaner and clearer night shots. By reducing overexposure to reveal the night scenes, brightness and dynamic range are both improved.

Equipped with 64 Megapixels, Camon 15 makes even the tiniest details clearly visible from 30 m away. In the current market, most cameras utilise 48 MP cameras to process sensory data. However, Tecno Camon 15 has the 64MP SONY camera as its computational support.

XinaBox reinventing the way to approach IoT

XINABOX, A SOUTH African company, is exploring how to approach IoT while inspiring students to follow STEM careers.

XinaBox partnered with the USA-based organisation Quest for Space to launch experiments to the International Space Station (ISS). The XinaBox experiment was launched towards the ISS with the XK92 xChips – Xinabox's kit for the ISS mission.

The kit was onboard the unmanned Northrop Grumman NG-13 launch vehicle from National Aeronautics and Space Administration's (NASA) Wallops Flight Facility in Wallops Island, Virginia.

To improve safety for the students, while fast-tracking the process to complete experiments, the company developed various xChips modules that are sold under the trading name Xinabox. Pronounced "X-in-a-box", the company was formally established in 2015 by Bjarke, Judi and Daniel Berman with its home base in South Africa while being registered in Ireland and the USA for patent and distribution purposes. xChips are a modularised set of computer chips that can be used to make a weather station, satellite or even a rocket. The components are plug-and-play and can be reused for different applications in the rapid development and prototyping of products as well as STEM-type experiments at school and university level.

Africa 24 Media presents factual story telling platform

AFRICA 24 MEDIA has announced the official launch of the continent's first all-factual video-on-demand platform.

The platform offers powerful and authentic stories from more than 30 different African countries. Most of these stories are FREE of charge. The content has been curated over the past 12 years by Africa 24 Media's team of experienced journalists.

Yebo is home to educative, inspiring and entertaining narratives about Africans, their overcoming spirit and aspirations for the future.

Photo: Yebo

Yebo aims to be the guide of Africa through stories.

About Yebo content

Documentaries: Watch half-hour documentaries on the history of major events on the continent and biographies of Africa's history makers and discover the continent in a fun and adventurous format.

Short stories: Get hundreds of short stories on health, politics, sports, women and children, adventure and many more.

Weekly shows: Make a date with fresh episodes of our weekly magazine shows and journey with us as we speak to opinion shapers around the continent on The Scoop, travel to different destinations and celebrate our diversity On The Road, jam to Africa's biggest hits and get the back stories from the artists themselves on Up Beat. Learn how to take better care of animals on Animore.

Snackables: Find out what the editor has picked to snack on the go, as you discover the continent through our eyes.

Yebo has an android app available on Play Store. Any downloaded content downloaded here can be watched offline within a period of 30 days.

The YEBO audio cast feature to the content makes the platform suitable to visit anywhere, anytime.

MultiChoice Group launches Africanews on DStv and GOtv across African continent

THE MULTICHOICE GROUP has launched Africanews on DStv and GOtv and offers millions of households across Africa access to a pan-African multilingual news channel.

As the COVID-19 crisis develops and spreads across the African continent, the MultiChoice Group and the Euronews group have partnered to offer DStv and GOtv customers access to real-time quality information.

Africanews offers its viewers content in English and French from an African perspective, made by journalists representing the diversity of the continent. With anchored shows, such as the daily bilingual breakfast show Morning Call, and a team of 50 local correspondents, Africanews reports breaking news from the ground, delivers unbiased reporting and showcases all the voices shaping the future of the continent. While Euronews, Europe's number one international news channel, was already available on the DStv platform, its sister channel Africanews will be available to DStv and GOtv subscribers in more than 40 countries across the African continent, including South Africa and neighbouring southern African countries, as well as countries such as Nigeria, Kenya, Ghana, or Angola.

Photo: Africa news

Africanews will now reach 20 million homes in total across the African continent.

Thanks to this new partnership, Africanews, launched in 2016 from Pointe-Noire, Congo, will now reach 20 million homes in total across the African continent. Michael Peters, Euronews' CEO, said, "Euronews and Africanews have always been recognised and valued for their fact-based impartial and independent newsgathering. In these times of uncertainty, millions more people in Africa will now have access to these trusted sources of information."

Yolisa Phahle, CEO MultiChoice Group Africa, said, "In these unprecedented times, the importance of having access to precise, reliable information becomes paramount for our customers and their families. We have increased access to news channels already and the launch of Africanews confirms our commitment to doing all we can to provide the best possible service."

Aside from delivering rolling news, Africanews offers viewers a diverse range of programmes, on culture, lifestyle, sport, business, travel or sci-tech. Inspire Africa is, for instance, the channel's flagship lifestyle magazine, sourcing stories from the continent.

Nozomi Networks and Deloitte to jointly deliver IT, OT and IoT services


Photo: Adobe Stock

Nozomi Networks aims to provide superior operational visibility, advanced OT and IoT threat detection

DELOITTE'S EMEA CYBERSPHERE Center and Nozomi Networks Inc have partnered to provide managed security services and solutions to holistically address IT, OT and IoT cybersecurity requirements in the EMEA.

Deloitte will provide Nozomi Networks' advanced solutions for OT and IoT visibility, operations monitoring and threat detection to customers in EMEA.

"With this partnership, our customers immediately gain access to OT and IoT network monitoring and threat detection that is fully supported by Deloitte's cyber risk services," said Nicola Esposito, risk advisory partner at Deloitte Spain.

"With more than 25 Deloitte engineers now trained and certified on Nozomi Networks technology, we are equipped to support custom deployments for our clients. Additionally, customers have the option to leverage Nozomi Networks solutions as part of a full suite of IT, OT and IoT security services now available through Deloitte's Cyber Intelligence Centers in EMEA."

Recognised as the market leader in OT and IoT security in the latest Frost & Sullivan Radar report, Nozomi Networks aims to provide superior operational visibility, advanced OT and IoT threat detection and strength across EMEA deployments. The company's products span IT, OT and IoT to automate the hard work of inventorying, visualising and monitoring industrial control networks through the innovative use of artificial intelligence. Use cases stretch beyond cybersecurity, and include troubleshooting, asset management and predictive maintenance.

In an increasingly digital world, cyber brings new opportunities and threats. Deloitte's Cyber Risk services is set to provide customers with a customisable suite of cyber solutions and managed services.

Konnect Africa to connect schools in Democratic Republic of Congo with high-speed internet

KONNECT AFRICA, A subsidiary of Eutelsat Communications, Schoolap and Flash Services, has announced a memorandum of understanding to connect several thousand schools across the Democratic Republic of Congo (DRC) to the Internet as part of the Schoolap project.

It aims to provide schools with high-speed internet connectivity, giving them access to a digital platform of officially recognised educational content and high-quality teaching materials.

The first stage of the project aims to connect 3,600 private schools over the next 12 months, leveraging Konnect Africa's satellite capacity and technical expertise, notably in terms of installation.

Each school will subscribe to a "Home Unlimited or plus" package, giving it access to a high-speed internet service. At a later stage, it is planned to roll the project out to several tens of thousands more schools, thereby responding to the requirement for digital inclusion which is part of government policy.

Konnect Africa has been operating for over a year in the DRC, bringing broadband connectivity to unserved or poorly served areas by delivering a solution that is affordable, flexible and available everywhere. Currently operating with limited capacity, Konnect Africa will see its in-orbit resources increase tenfold with the entry into service of the Eutelsat Konnect satellite in the autumn of 2020. With a total capacity of 75 Gbps, Eutelsat Konnect will be able to provide speeds of up to 100 Mbps with total or partial coverage of 40 African countries.


Photo: Adobe Stock

The first stage of the project aims to connect 3,600 private schools over the next 12 months.

Konnect Africa CEO Jean-Claude Tshipama, said, "This project highlights the major benefits of satellite internet in bridging the digital divide, as well as the efficiency of the solutions deployed by the Konnect Africa teams. The entry into service of Eutelsat Konnect in the coming months will be a milestone in our ability to better address the strong demand for connectivity from our customers, ranging from individuals to businesses and government agencies."

Spatial data and information support government's COVID-19 containment

THE SOUTH AFRICAN National Space Agency (SANSA), through its twin mandates to acquire, disseminate and distribute space-based data and information for decision-making, as well as coordinating the South African space sector, is aligning itself and the South African space sector's capabilities and capacities towards the fight against COVID -19.

The objective is to provide decision makers with relevant space-derived spatial information and tools to support evidence-based decision-making in their efforts at implementing a national response to mitigate the COVID-19 pandemic.

This space-derived spatial data and information will be sourced from both government agencies and SANSA's partners in the private sector and will be provided to the various government agencies charged with managing the spread and response to the pandemic and the Department of Science and Innovation COVID-19 research platform. "Government's historical investment in science, technology and innovation can now be harnessed for a national response to a global pandemic, which brings to the fore the importance of these investments for addressing our socio-economic-environmental challenges and where SANSA is one of many such entities that is able to respond to the current crisis," says Dr Munsami, the CEO of SANSA.

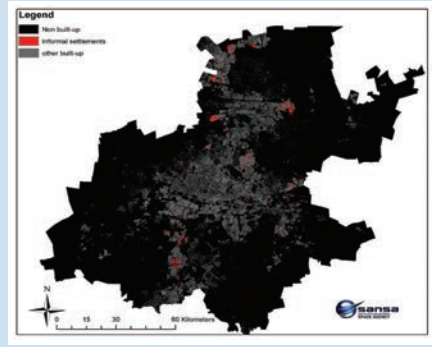


Photo: SANSA

Map of Gauteng informal settlements.

Vital to fighting the pandemic is developing an understanding of the spatial extent of the pandemic that includes the population spread and its density mapped at household level, the patterns of movement of people and the location of communities at risk and households, especially in rural areas, said the statement.

This knowledge could assist with the planning for deployment of medical workers, with widespread screening and testing, with social development through water and sanitation services and with national security amongst others. In this regard, tools and information products that SANSA and its industry partners are providing include:

Origin-to-destination analysis of vehicle traffic movement on South Africa's major routes in the days leading up to and after the lockdown period to identify the movements between urban and rural areas, thereby determining potential infection hotspots.

Human settlement layers, which include urban and rural density maps that will assist with the planning of appropriate resource deployment. The datasets further provide location information at household level to assist with the COVID Home Visits Programme and deployment of necessary services, especially in informal settlements and rural areas. Monitoring of climate change, in particular air quality, across South Africa as a result of the lock down, will also be supported.

In addition to these tools and information products, SANSA intends to leverage the space-based information knowledge located in institutions of higher education, government agencies and science councils along with the private sector by launching a call for solutions and proposals that demonstrate impactful services that respond to containing the spread of the coronavirus.

Gist Mobile launches new mobile calling and messaging app

GIST MOBILE HAS launched a new mobile calling and messaging app for the African diaspora and anyone that regularly calls Africa or other international destinations.

The new app provides users with multiple numbers, cheaper international calls and even free calls and messages to other Gist users.

Founded by two telecoms experts from Nigeria, Gist Mobile has been established specifically with the African population of the UK, Europe and North America in mind.

"Even before we had to stay at home, the old-fashioned system for mobile phones didn't fit for our lifestyles and especially that of the African community. We are launching an alternative that is perfect for the stay-at-home reality we are facing right now, but will also be a much better fit for the new normal of our lives when all of this is over," said Aramide Adebanjo, co-founder of Gist Mobile.

"We all lead busy, intricate lives and the African community is no different. Now those lives are crashing into each other as we are having to live them all from home. Now more than ever, people need to create a 'Gist' for all the different aspects of their lives - business, friends, family back 'home' or even dating. Creating a 'Gist' for each of them allows you to manage your life better."

ADVERTISERS INDEX

A healthy attitude

During the ongoing pandemic telecommunications has been proving its importance in ways that might not once have been predicted. Here are a few examples from governments, agencies and companies of ways in which telecommunications is reducing risk and aiding continuity

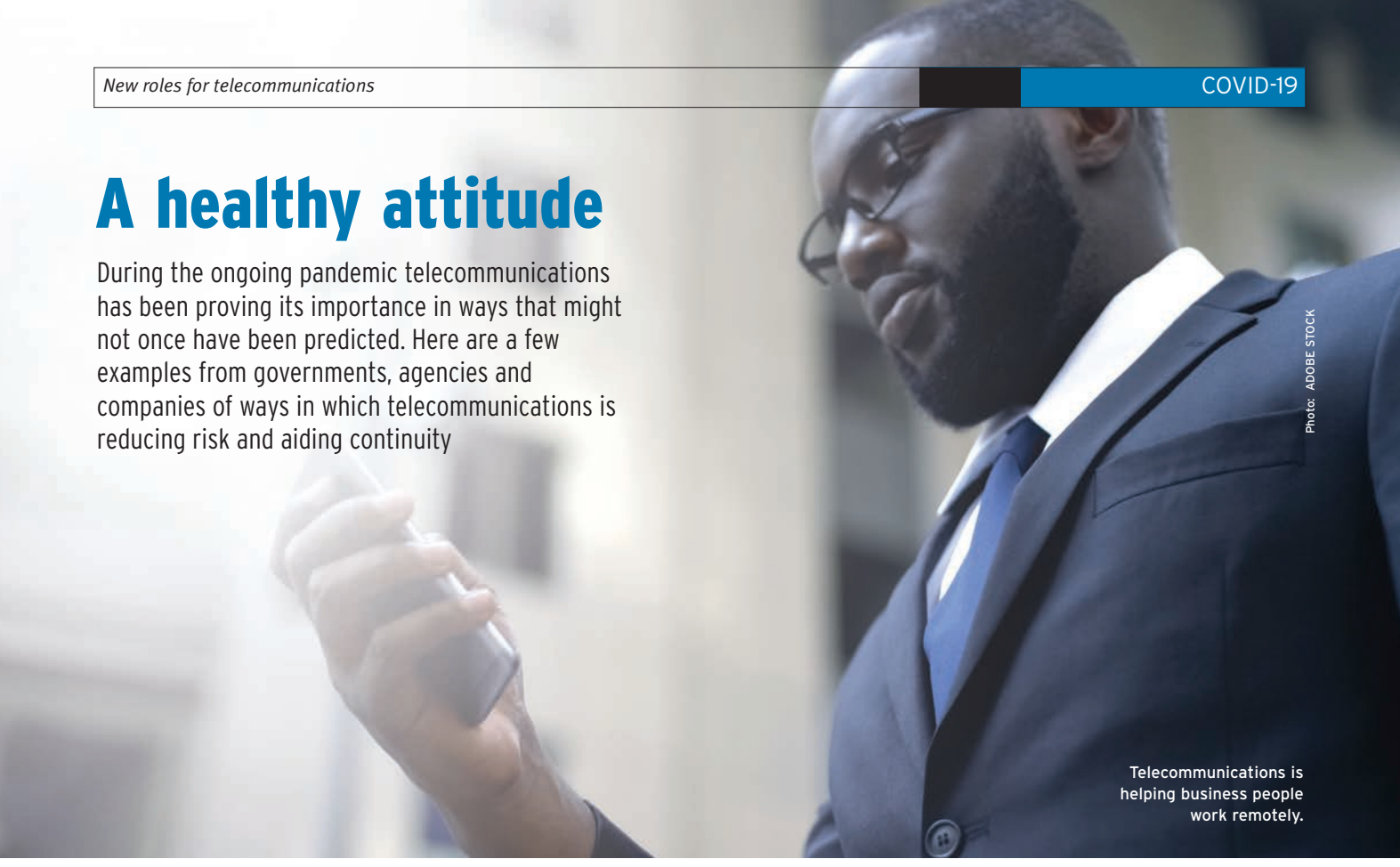


Photo: ADOBE STOCK

Telecommunications is helping business people work remotely.

AFRICAN BROADCASTERS ARE playing a valuable role in supporting learning during the present health crisis. The South African Broadcasting Corporation (SABC) and the country's Department of Basic Education have launched a multimedia learner support initiative under the banner COVID-19 Learner Support. It's aimed at limiting the impact of the lockdown on the school calendar.

The programme started in early April, and will broadcast across three SABC TV channels and 13 radio stations with online support. The series will provide curriculum support lessons to learners in Grades 10, 11 & 12 and Early Childhood Development (ECD).

This initiative is also launched in anticipation of the mid-year exams due in June 2020, for which the campaign will be providing learners with relevant support material. This multimedia initiative is supported by an online YouTube channel.

Meanwhile, as staff deployment to support countries becomes unfeasible due to travel restrictions and shutdowns implemented by several African countries to halt the spread of COVID-19, the World Health Organization (WHO) Regional Office for Africa has launched the first online training for emergency responders to bolster efforts in tackling the virus. The two-hour session via video link drew 500 participants and focused on the clinical symptoms of the virus and how to triage COVID-19 cases, treat complications and manage severely ill patients, as well as laboratory testing strategy and quarantine strategies.

Initiatives to reduce contact with people or cash are among the most notable strategies being pursued by African operators in particular. For example in Tanzania, to help businesses and corporate clients reduce unnecessary movements, Vodacom has introduced the DocuSign e-signature platform to aid the signing of various company documents electronically. This means that Vodacom can remotely sign and approve documents for its customers without having to meet them physically.

Vodacom also has digital channels that can help customers and businesses to work from home, ensuring they stay connected at all times, and has zero-rated critical websites for Tanzanians to access reliable information on the status of coronavirus, along with some learning websites.

Meanwhile, as South African banks turn to cashless transactions, mobile money transfers, online, debit and credit card transactions are being encouraged as opposed to cash, which is a possible source of virus transmission.

Ukheshe, a micro transaction platform, says that a move to a cashless environment is now possible for all South Africans and has launched a 90-day 'zero rating cash management fee' to assist merchants and consumers using its platform.

Cashless payment initiatives are not just under way in South Africa. A flurry of activity in Kenya has seen banks and operators make cashless payments easier, with Safaricom and Airtel Kenya waiving transaction fees on their mobile money transfer service and the Central Bank of Kenya approving the increase of daily M-Pesa transaction limits in order to support Kenya's small and micro business enterprises, while Absa Kenya, formerly Barclays Bank Kenya, has waived all digital transaction costs below a certain limit in order to encourage the use of cashless methods.

As we note elsewhere in this issue, these are far from the only ways in which telecommunications is helping African people and governments face up to some major challenges. We hope – and assume – there will be many more. ✆

DJIBOUTI TELECOM

Djibouti is strategically located at the crossroads of three continents offering the perfect natural gateway to major markets.

Operational since 1999, Djibouti Telecom is the international carrier with the strongest connectivity in the East African region.

$150m
$ 150m+ investment in major submarine cable systems, with more than 4TB of available Bandwidth

90
Network with Direct Connections to over **90 countries**

2
1 **Tier3** (and upcoming **Tier 4**) Data Center

100
Work with **100+** Global Partners around the world

SERVICES

- VOICES SERVICES & ROAMING
- IP / DATA & CAPACITY SERVICES
- DATA CENTER HOSTING
- TELEPORT FACILITY

Subsea and Regional connectivity