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Communications Africa Afrique

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Improving connectivity

Building a better connected Africa

AfricaCom
A round-up of events at the recent edition of the show

Cabsat
Technologies and solutions for satellite communications

Diffusion
La croissance de Vibe Radio

Visitors at the recent AfricaCom

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A note from the Editor

This edition of Communications Africa explores how better connectivity in Africa will drive opportunities in the continent, taking a closer look at wireless and mobile technology. This issue also looks at developments in the telecommunications sector and features innovations showcased at the recent AfricaCom. A preview for next month's Cabsat show looking at products and services from the satellite industry is also featured. See more on eSite power systems on page 33.

Main Cover Image: Sutham
Cover Inset: TEOCO

Une note du rédacteur

Cette édition de Communications Africa explore l'essor de la technologie sans fil et mobile. Ce numéro examine également les développements dans le secteur des télécommunications et présente une série d'événements à AfricaCom 2016, mettant en vedette les exposants et les visiteurs qui ont assisté à l'émission et un aperçu de l'événement du mois prochain Cabsat regarder les produits et services de l'industrie des satellites.

FEATURES

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Ethiopia reveals plans to launch carrier rocket

THE MINISTRY OF Science and Technology announced Ethiopia is constructing a medium-sized satellite launching rocket that will be in its final stages of completion within the next three years. Ministry public relations director Wondwosen Andualem stated that a prototype of the carrier rocket had been created. He said, "Efforts are underway to launch a medium sized rocket into space within the next three years."

The new rocket will be launched within the next three years. (Photo: Sergey Nivens)

Ericsson strengthens partnership with Cisco carrier rocket

ERICSSON AND **CISCO** are extending their strategic partnership to include a new Wi-Fi solutions offering, named Evolved EWN. The company aims to offer reliable Wi-Fi with the highest performance to Ericsson's mobile, cable and other industries customers. EWN brings together Ericsson's 3GPP access, core networks and applications with Cisco's Wi-Fi portfolio. The Wi-Fi solution is expected to offer reliable, high performance Wi-Fi to Ericsson's mobile, cable and other industries customers. "Our strategic partnership brings together the capabilities of two leading players in networking, mobility and cloud, creating the best end-to-end solutions and opportunities for our customers," said Rima Qureshi, head of region North America responsible for the strategic partnership with Cisco and Ericsson.

Eutelsat to broadcast HD channels across MENA region

CHINA CENTRAL TELEVISION has entered a long-term deal with **Eutelsat** Communications to broadcast three of its flagship channels in High Definition (HD) across Europe, the Middle East and North Africa.

CCTV-4 HD, CGTN HD (formerly CCTV News) and CGTN-Documentary HD (formerly CCTV Documentary) are now available in HD in Chinese and English from the high-power HOTBIRD satellites. The channels broadcast free-to-air and complement Standard Digital versions already available from the region's leading broadcasting neighbourhood.

Eutelsat currently broadcasts on seven Eutelsat satellites serving Europe, Africa and the Middle East.

Microsoft signs deal with Ecobank in support of African governments

MICROSOFT AND **ECOBANK** have signed a memorandum of understanding (MOU) to complement African government efforts to modernise and raise the standards of the continent's major cities through digital solutions. The MOU will see the modernisation of sectors that will have the most immediate and significant impact for African countries. These sectors will include bursary disbursements and school fee collections in the education sector: market shop and small vendor municipality collections, vehicle and driving licensing as well as eVisa and ePassport fee collections. The agreement also supports the implementation of a comprehensive e-skills and a digital literacy programme.

SEACOM joins forces with ShowMax

SHOWMAX THE AFRICAN Video on Demand (VOD) service is working alongside **SEACOM** to improve customer experience for faster content delivery and less buffering. The deal will see the company host ShowMax caching servers in Nairobi, enabling peering to take place with local Internet service providers (ISPs).

"The net effect of placing caching servers in Nairobi is that customers can pull video content from much closer to home, which means faster response time and less buffering. This move also lays the groundwork for further expansion in East Africa as we continue to roll out ShowMax in new countries," said ShowMax head of distribution Mike Raath.

Zimbabwe's digital migration progress now 34 per cent

ZIMBABWE'S DIGITAL TRANSITION in broadcasting is a way to ensure that the country adopts international standards for broadcasting and content distribution through digital channels is 34 per cent complete.

According to a report in The Herald, this information was shared by Obert Muganyura, the chief executive officer of the Broadcasting Authority of Zimbabwe (BAZ). He also highlighted the outstanding payments of US$42.4mn to be made to Huawei and other service providers that have been brought on to assist in the digital migration exercise.

Mastercard launches new mobile platform in East Africa

MASTERCARD TODAY LAUNCHED 2KUZE, a digital platform that connects smallholder farmers, agents, buyers and banks in East Africa. 2KUZE enables farmers to buy, sell and receive payments for agricultural goods via their feature phones. The platform brings the benefits and security of mobile commerce and payments to farmers in Kenya, Uganda and Tanzania. 2KUZE was launched in 2015 to develop practical and cost-effective financial tools that expand access and help build stable futures for more than 100mn people globally. Through a US$11mn grant from the Bill & Melinda Gates Foundation, the Lab is working with East African entrepreneurs, governments and other stakeholders to develop local products rooted in the company's global knowhow.

Vivo Energy partners with Orange on mobile money service

VIVO ENERGY AND **Orange** have entered an agreement that will allow Orange Money customers to cash in and cash out money from their Orange Money account and pay in any Shell service station operated by Vivo Energy. The services - already available in Mali, Cote d'Ivoire and Madagascar - will be extended to the rest of the common footprint by mid-2017. The Pan-African partnership will cover nine countries (Botswana, Burkina Faso, Côte d'Ivoire, Guinea, Madagascar, Mali, Mauritius, Senegal and Tunisia) where both companies overlap and where Orange Money is available.

MTN renews contract with IMImobile

MTN HAS ANNOUNCED it will renew its contract with cloud communications software and solutions provider IMImobile to push the growth of its digital services. The new deal will see IMImobile support MTN to optimise the customer experience for rich digital content services and additional features including Facebook Messenger, push notifications and IMImobile's chatbot solution.

"MTN is pleased to renew the contract with IMImobile and looks forward to accelerating the growth of its already successful digital lifestyle services portfolio with new capabilities, products and services delivered under this agreement," said Herman Singh, chief digital officer of MTN group.

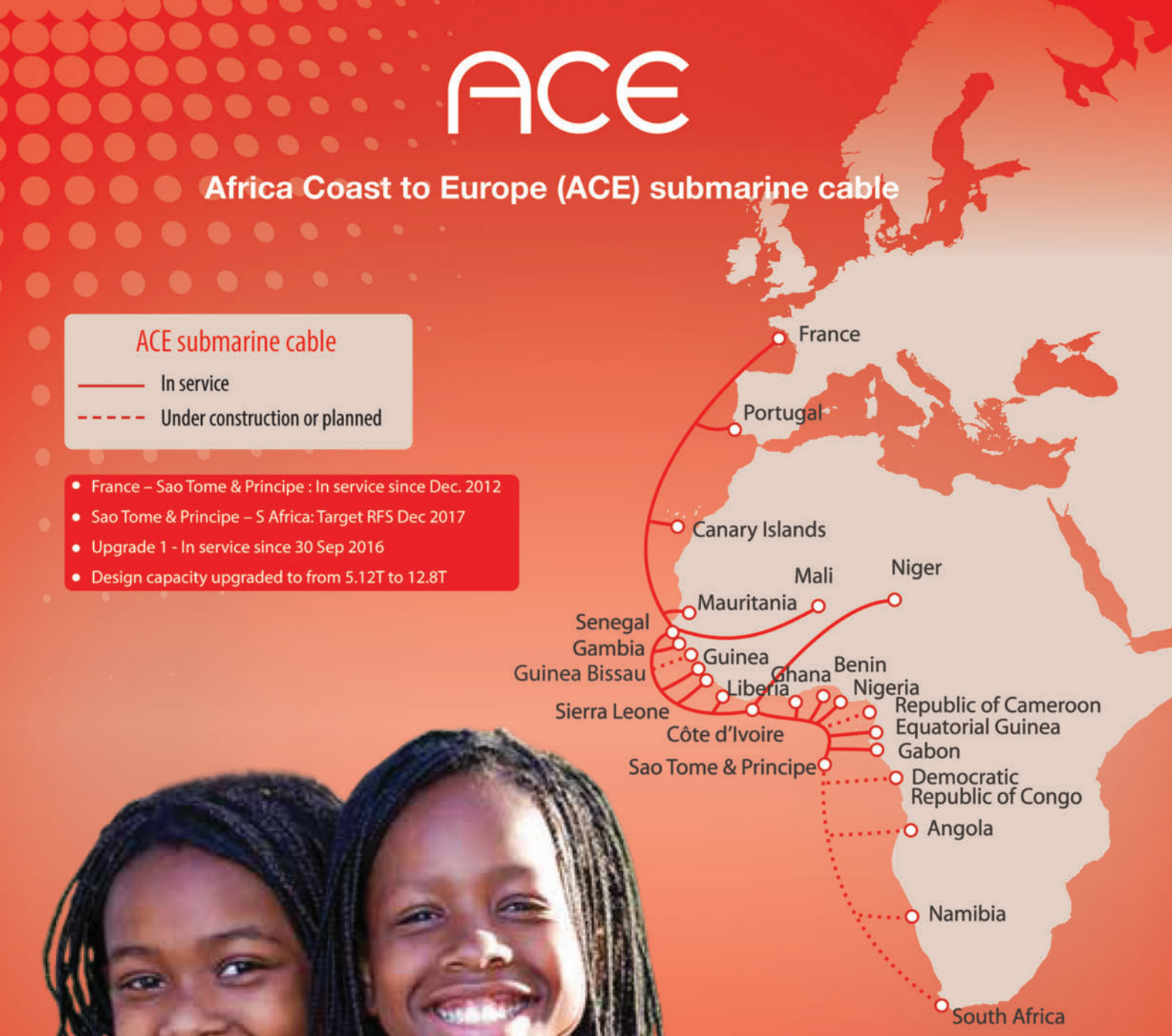
ACE

Africa Coast to Europe (ACE) submarine cable

ACE submarine cable

- In service
- Under construction or planned

- France – Sao Tome & Principe : In service since Dec. 2012
- Sao Tome & Principe – S Africa: Target RFS Dec 2017
- Upgrade 1 - In service since 30 Sep 2016
- Design capacity upgraded to from 5.12T to 12.8T



. . . reducing the digital divide in Africa

ACE

Le lancement d'Intelsat 33e améliore la couverture en Afrique

LE DERNIER SATELLITE d'**Intelsat**, Intelsat 33e, a passé tous les tests en orbite pour entrer en service cette semaine, étendant la couverture à des millions d'utilisateurs finaux supplémentaires aux quatre coins du globe, y compris en Afrique. Le satellite Intelsat 33e est le second des satellites à haut débit (HTS) EpicNG d'Intelsat. Fabriqué par Boeing et lancé en août 2016, le satellite est équipé de la charge utile la plus avancée de tous les engins spatiaux commerciaux, si l'on en croit les déclarations d'Intelsat.

Intelsat 33e a terminé avec succès tous les tests en orbite (Photo: Intelsat)

2Mauritius' IOX projette de construire un câble international pour relier l'Inde à l'Afrique

SELON UN RAPPORT publié par le cabinet de conseil Balancing Act, un nouveau projet de câble aurait pour ambition de relier Maurice à l'Afrique et à l'Inde. Arun Kandasamy, President directeur général de IOX (anciennement **SEACOM**), souhaite faire de Maurice un nouveau pôle d'implantation commerciale. Le projet permettrait à long terme de faciliter l'entrée des entreprises indiennes sur les marchés africains. Kandasamy explique que l'idée du câble IOX lui est venue lorsqu'il a pris conscience du potentiel économique de Maurice. Le pays peut devenir « une platforme commerciale pour les entreprises Indiennes en Afrique » puisqu'il occupe « une position géographique idéale pour stocker les données d'Afrique. »

En lire plus sur www.balancingact-africa.com/

Metro lance un nouveau site web de divertissement en RDC

LES FONDATEURS DU groupe **Metro**, experts du secteur des télécommunications et d'Internet, on lancé l'un des plus grands sites Web de divertissement en République démocratique du Congo.

La société a également créé une agence numérique dédiée à la gestion des marques qui souhaitaient apparaître sur le site. Metro a poursuivi avec le lancement d'une chaîne de télévision Web consacrée à la musique. Elle crée aujourd'hui du contenu que diffusent les stations de TV locales.

À l'occasion du lancement initial du site Web, les fondateurs du groupe Metro expliquaient : « La RDC regorge de talents, mais comme personne n'avait l'opportunité de les découvrir, nous avons décidé de créer une platforme pour les faire connaître au public. »

« Nous avons lancé le projet lorsque la 3G a émergé et a permis au marché d'accéder à Internet. Mais à l'époque, il n'existait pas de contenu web local. »

Ericsson signe un contrat avec la 20th Century Fox pour les films d'animation Dream Works

ERICSSON A CONCLU UN accord avec le géant international de la distribution de contenu, 20th Century Fox Television Distribution, pour son service de vidéo à la demande (Video On demand ou VOD), Nuvu. La seconde étape de l'accord assurera la distribution des films d'animation de Dream Works et autres franchises cinématographiques internationales dans diverses régions de l'Afrique subsaharienne, dans de multiples langues.

Nuvu est un service VOD complet proposé sur abonnement et développé par Ericsson pour les opérateurs mobiles des marchés émergents.

« Thorsten Sauer, chef de la diffusion et des services de médias expliquaient: L'accord passé avec 20th Century Fox Television Distribution pour la distribution de longs-métrages marque un jalon important pour Ericsson qui a pour ambition de développer son nouveau service d'abonnement VOD, Nuvu. »

Le MTN lance un nouveau service mobile de transfert d'argent du Cameroun vers 25 pays d'Afrique

MTN MOBILE MONEY permet à l'utilisateur d'envoyer de l'argent vers 25 pays d'Afrique depuis son compte MTN Mobile Money. »« »C'est le message que fait circuler depuis déjà plusieurs jours la filiale camerounaise du géant sud-africain des télécommunications, MTN. Le service Mobile Money cible des pays tels que le Congo, la Côte d'Ivoire, le Gabon, le Ghana, la Guinée, le Kenya, le Lesotho, le Liberia, Madagascar, le Malawi, le Mali, le Mozambique, le Niger, le Nigeria, etc. MTN a même anticipé des scénarios de transfert d'argent transcontinental où le bénéficiaire ne possède pas de compte Money Mobile. Le fonctionnement est très simple: il suffit d'entrer les nom et prénom du destinataire et le montant à envoyer pour valider la transaction.

Offrant la possibilité d'envoyer des fonds vers 25 pays d'Afrique, MTN Cameroun occupe désormais une position privilégiée dans un segment du marché où la société bénéficie, en outre, de l'appui d'un partenaire de renom : British WorldRemit.

Nouveau réseau par satellite en Afrique

KWESÉ TV, LE PLUS récent des réseaux par satellite disponibles en Afrique, fournira une sélection de programmes sportifs et de divertissement à divers pays, dans toutes les régions d'Afrique.

Le service sera d'abord disponible au Ghana, au Rwanda et en Zambie, avant d'être déployé à d'autres pays, en temps voulu. Les téléspectateurs de ces pays peuvent désormais accéder aux programmes de Kwesé TV via le propre satellite de Kwesé et un décodeur disponible auprès des principaux détaillants. « Que vous optiez pour l'abonnement au bouquet complet de Kwesé TV, que vous regardiez de fantastiques programmes sportifs diffusés en clair, ou que vous préfériez regarder la télé sur un appareil mobile, notre ambition est de devenir le choix premier pour les téléspectateurs de toute l'Afrique. Nous leur proposerons les meilleurs programmes, à un prix abordable, permettant à un nombre d'utilisateurs encore jamais atteint d'accéder à nos chaînes », affirme Joseph Hundah, président d'Econet Media et PDG du groupe.

Visa entre en partenariat avec Atlas Mara

VISA, MULTINATIONALE SPÉCIALISTE des technologies de paiement, a conclu un partenariat commercial avec Atlas Mara, société mère de Bank ABC, pour développer le paiement électronique et l'inclusion financière en Afrique subsaharienne. Via ce partenariat, les banques d'Atlas Mara pourront offrir à leur clientèle de nouveaux moyens d'effectuer des transactions, méthodes qui seront à la fois plus pratiques et plus sûres, selon une déclaration faite hier.

« Les habitants de toute l'Afrique ont besoin de services financiers plus complets et plus fiables, et Atlas Mara joue un rôle prépondérant au sein de ce processus», affirme Andrew Torre, responsable national du groupe pour Visa Afrique subsaharienne. « Ce partenariat permet à Atlas Mara de déployer les ressources et les solutions de paiement mondiales de Visa, avancée qui a le potentiel de transformer le commerce, les paiements mobiles et l'inclusion financière à travers l'Afrique », ajoute-t-il.

Events/Événements 2017

FEBRUARY/FÉVRIER			
22-23	**Ecommerce Africa**	Cape Town, South Africa	www.ecommerce-africa.com
22-23	**Mobile IT**	Krakow, Poland	www.targi.krakow.pl
27-2	**Mobile World Congress**	Barcelona, Spain	www.mobileworldcongress.com
MARCH/MARS			
1-3	**The Blockchain Africa Conference 2017**	Johannesburg, South Africa	www.blockchainafrica.co
5-9	**CIS**	Dusseldorf, Germany	www.eurocis-tradefair.com
19-23	**OFC Los Angeles**	Los Angeles, USA	www.ofcconference.org
20-24	**CeBIT**	Hanover, Germany	www.cebit.de
21-23	**CABSAT**	Dubai, UAE	www.cabsat.com
22-23	**Cashless Africa**	Lagos, Nigeria	www.cashlessafrica.com
29-30	**International Wireless Communications Expo**	Las Vegas, USA	www.iwceexpo.com
APRIL/AVRIL			
1-3	**Vietnam International Broadcast & AV Show**	Ho Chi Minh City, Vietnam	www.vibashow.com.vn
5-7	**Med-e-Tel**	Luxembourg	www.medetel.eu
21-27	**Nabshow**	Las Vegas, USA	www.nabshow.com
27-28	**IOT Global Congress 2017**	London, UK	www.iotglobalcongress.com

Highlights from CES 2017

IN A KEYNOTE by Qualcomm CEO Steve Mollenkopf at CES 2017 held 9-12 January in Las Vegas, USA - he explored how the 5G network would change the world, supporting a variety of devices with “unprecedented scale, speed and complexity”.

During his keynote Mollenkopf stated, "5G will be the tipping point that builds on LTE and finally enables IoT". Qualcomm introduced the Snapdragon 835, the first 10 nanometer mobile processor that can deliver extended battery life, built-in security, eye-based authentication, secure audio, on-device machine learning and immersive experiences.

Plank took the keynote stage and highlighted the importance of branding saying that “the key to any brand is to have personality and point of view.” Under Armour is innovating by putting technology front and center, investing US$1bn in health and fitness tech. Plank noted three new models of the company’s Record Equipped shoes, which give performance results based on workouts. Michael Phelps joined Plank onstage to demo the shoes and talk about UA Healthbox, powered by UA Record, the world’s first connected fitness system. The keynote came to a close with the unveiling of a new line of sleep apparel, dubbed Rest Win Repeat, in collaboration with Patriot’s quarterback Tom Brady, designed to rebuild the body while it rests through infrared technology.

The opening day of CES 2017. (Photo: CES 2017)

The annual Leaders in Technology Dinner was also another highlight welcoming industry executives and influencers who were joined by global government officials. Ford President and CEO Mark Fields shared the company's vision for how the future of mobility will be transformed by connectivity. "Imagine what could happen when the way you get around looks completely different. Cities will change. The way we work and play and socialize will transform. And it will all be enabled by connectivity," said Fields. He noted that Ford Sync is expanding to deliver cloud-based services and this will enable all Ford vehicles to be controlled remotely with the FordPass app. He also reiterated Ford's new partnership with Toyota to form the SmartDeviceLink Consortium to establish industry-driven standards for in-vehicle apps.

CES 2017 also hosted SuperSessions and conference tracks focused on technology trends and policy issues, including C Space Storytellers and the Sports Business Innovation Track.

Some other events that took place included a session hosted by Facebook that saw Andrew “Boz” Bosworth, VP of ads & business platforms, Facebook sit alongside Sony’s Josh Greenstein, president of worldwide marketing & distribution at the company, to discuss how mobile and social media platforms are shaping Sony’s marketing campaigns to reach targeted audiences. Bosworth stressed that Facebook provides a number of platforms for marketing customization and distribution to targeted audiences.

CES 2017 was a success attracting an estimated 180,000 visitors. The ‘Stars of CES Awards’ presented by What Hi-Fi recognised the top 10 audio and video products launched at the event. The complete list of winners can be found at www.WhatHiFi.com. Commenting on this year’s show Bridget Karlin, managing director, IOT, Intel said, “CES 2017 was a global showcase that demonstrated that we are in a new era of innovation where technology is valued not just for the devices it produces but for the experiences it makes possible,” said Bridget Karlin, managing director, IOT, Intel.

Kenya launches Digital Literacy Programme

THE KENYAN GOVERNMENT has rolled out the first 12,000 digital devices in 150 primary schools countrywide at the piloting phase of its Digital Literacy programme (DLP).

The digital programme to be completed by March 2017 aims to deliver over 1.2mn devices to all its 23,951 public primary schools targeting class one and two pupils at a cost of US$290mn.

The devices include tablets for pupils and laptops for teachers. The digital devices are loaded with the Kenya Institute of Curriculum Development (KICD)-approved contents for classes one and two.

In the last two years, more than 66,000 teachers have been trained on the use of these devices for learning and teaching purposes.

To effectively use these devices in all primary schools, a massive rural electrification programme has connected more than 22,235 schools to the national power grid with the Energy Ministry in the final stages of connecting the remaining institutions.

Two consortia-comprising local universities and foreign firms have been contracted to undertake the project.

The two consortia are Jomo Kenyatta University of Agriculture and Technology (JKUAT)/Positivo BGH and Moi University/JP Courto.

Most of these devices are assembled locally at the universities although the remainder is currently being imported mainly from China.

Class one and two pupils are set to benefit from the Digital Literacy Programme.

JKUAT has a capacity to assemble 750,000 devices annually creating 3,000 jobs for locals engineering graduates.

In one of the schools where the devices are currently being used in teaching and learning, they have elicited interest and excitement in the 5-7 year pupils in classes one and two. " I happy we will be able to watch cartoons in class," said Tasmin Abdalla, a seven year old pupils at Sparki Primary School in the Mombasa County.

The school received 80 learners' tablets and two laptops for teachers as well as a projector and a WiFi device.

Facebook partnership to help local communities to stay safe online

FACEBOOK HAS PARTNERED with the International Centre for Leadership Development Nigeria (ICLDNG) to launch a safety centre for teenagers, parents and educators, with the aim of making the Internet a safe and secure environment for communities.

According to Vanguard Media, the safety centre provides users with advice on safe and secure ways of sharing information.

The Facebook safety centre also includes the bullying prevention hub that seeks to educate teenagers, parents and educators on ways to prevent bullying.

Felix Iziomoh, executive director of ICLDNG said, "We're pleased to partner with Facebook to help educate people about how they can stay safe online. We believe in the positive uses of technology and we are happy to play a role in helping to create a better and safer online community."

Airtel Africa appoints new chief commercial officer

BHARTI AIRTEL HAS announced that Rajeev Sethi, will be the new chief commercial officer for its Africa division. He will report to Raghunath Mandava, MD and CEO, Airtel Africa.

Rajeev's new role will see him undertake responsiblity for the formulation and implementation of customer-centric commercial strategies across all the African countries Airtel operates: Burkina Faso, Chad, DR Congo Republic of the Congo, Gabon, Ghana, Kenya, Madagascar, Malawi, Niger, Nigeria, Rwanda, Seychelles, Sierra Leone, Tanzania, Uganda and Zambia.

Rajeev will be working on the consumer and enterprise businesses covering products and pricing, distribution, brand and customer experience, Airtel noted.

Speaking about the new appoinment, Raghunath Mandava said, "We are delighted to welcome Rajeev to the Airtel Africa team. With his vast experience across a range of developing markets, Rajeev will contribute immensely in accelerating our growth journey. I am confident that Rajeev will take the Airtel brand to greater heights".

Rajeev brings with him more than 21 years of diverse experience across several sectors such as Telecom, IT, Paints and Petroleum. Up until his new appointment, Rajeev was working at the Telenor group for more than seven years. In his last role, he was as chief executive officer of Grameen Phone, the biggest operator in Bangladesh.

In 1997, Rajeev recieved an MBA from the Indian Institute of Management, in Lucknow and graduated as an electrical engineer from Gujarat University in 1993.

Airtel operates in 17 African countries. (Photo: Rameshng/wikimediacommons)

TTCL to launch new communication services in Tanzania

TANZANIA TELECOMMUNICATIONS COMPANY Ltd (TTCL) is seeking US$300mn funding to roll out its communication strategy across the country by December, this year.

TTCL acting chief executive officer Waziri Kindamba noted that the funding will be needed to launch phase one of the company's strategy that will see all regions covered by stable communication services, including the newly launched 4G LTE.

Addressing the crowd at the launch, Kindamba said there was a chance of securing the funds any time from now, as the government has granted the firm's request to use its resources to seek loans from financing institutions.

Tanzania Investment Bank (TIB) and other banks have shown interest in the deal whose success will result into further expansion of TTCL's infrastructure.

"We are now implementing our ambitious strategic plan on massive investment, with the firm targeting to cover the entire country with affordable and reliable services," Kindamba said.

The acting chief executive officer was confident that TTCL will soon strengthen its presence in the communication industry, with the support of Tanzanians working to meet the company's mission and goals.

Although other privately owned companies were leading in service provision, Kindamba, noted that government support to TTCL and increasing subscription by Tanzanians will enable the company to regain its market presence.

TTCL's richness in data supply and crucial infrastructure such as fibre optic and based networks make the communication company highly competitive in the market.

Launching the 4G LTE, Mwanza regional commissioner John Mongela said the communications industry has experienced growth very quickly, bringing both opportunities and challenges to TTCL.

Sudatel Telecom Group exhibits for first time at MWC 2017

SUDATEL TELECOM GROUP exhibited its new products for the first time at this year's Mobile World Congress (MWC) held in Barcelona, following the easing of US trade sanctions against Sudan.

The company offers both mobile and fixed (voice and data) services to businesses, residents and ISPs across North and West Africa, as well as the provision of wholesale services to globall carriers.

Sudatel recently announced it will increase its spending in its domestic and pan-African operations during 2017, to meet a rising demand for improved quality in telecom services rolled out across the region.

The show provided Sudatel a platform to showcase its capabilities, achievements and corporate strategic direction and explore potential business partners, suppliers and customers on a global scale. Sudatel will continue to play a key role in connecting Africa and the Middle East to the rest of the world.

Sudatel is partially owned by the Sudanese government and listed on both the Khartoum and Abu Dhabi Stock Exchange markets.

Sudani, the domestic operator provides 4G and 3G mobile and fixed broadband services to customers and businesses in Sudan; mobile financial services, including the country's first mobile money service, under the "Gorooshi" brand; and other digital services including an app store built primarily for consumers in North Africa for whom many international apps are not relevant, with local software developers encouraged to customise regional apps.

Last year's Mobile World Congress saw more than 100,000 visitors. (Photo: GSMA)

"We are an ambitious company which realises that a high quality telecom service is vital to uplifting people's lives through our region's economic development," said Tarig Hamza Zain El Abdein, CEO of The Sudatel Telecom Group.

"We have a well-framed vision and mission and will continue to work hard to ensure that we maintain our position as one of the most reliable ICT providers in North Africa," he added.

Sudatel was sponsoring the Sudan Pavilion at Mobile World Congress this year.

MTN launches mobile money service

MOKASH, A NEW platform to help MTN mobile money subscribers save and borrow money has been introduced.

MTN Rwanda, together with Commercial Bank of Africa (CBA), launched the savings and loans product, which enables registered MTN Mobile Money customers to save, earn interest and to take loans on a short term basis using their mobiles.

The new product is part of the Rwandan government's wider efforts to transform Rwanda into a cashless economy, stated Clave Gatete the minister for finance and economic planning.

"The launch of MoKash in Rwanda is in line with the government's objective of making Rwanda a cash-less transaction economy," minister Gatete told The New Times following its launch in Kigali.

Le Sénégal s'associe à eCurrency pour lancer une devise numérique en Afrique de l'Ouest

LE SÉNÉGAL VIENT d'annoncer un projet d'introduction de devise numérique dans la région qui fonctionnera parallèlement au CFA actuel. La Banque régionale de marchés (BRM) s'est associée à eCurrency Mint Limited (eCurrency) pour fournir une devise numérique dans l'Union économique et monétaire ouest africaine (UEMOA).

Le Sénégal se pose en pionnier des devises numériques et de l'adoption des technologies de chaînes de blocs. L'État ouest Africain du Sénégal pourrait bientôt contribuer à la révolution des devises numériques en lançant l'eCFA.

L'eCFA est la version numérique des francs CFA utilisés par des États indépendants d'Afrique de l'Ouest. L'eCFA, dont le lancement est prévu en 2017, sera progressivement mis en place par la Banque régionale de marchés, la banque régionale du Sénégal.

« Nous sommes déterminés à fournir des services financiers numériques et une véritable intégration financière à l'Afrique de l'Ouest », a récemment déclaré Alioune Camara, directeur de la BRM.

« Un eCFA soutenu par notre système bancaire et la banque centrale est le moyen le plus sûr de stimuler l'économie numérique. Nous pouvons désormais garantir une interopérabilité totale entre tous les systèmes de paiement en devise numérique.

Le Sénégal se pose en pionnier des devises numériques et de l'adoption des technologies de chaînes de blocs. (Photo: Dereje/shutterstock)

C'est un grand bond en avant pour l'Afrique ».

Vingt pour cent seulement des Africains ont accès aux services bancaires de base; des modes de transaction électroniques fiables sont donc le meilleur moyen de garantir l'intégration financière.

« eCurrency aura pour mission de préserver l'aspect sûr et inclusif du papier-monnaie physique dans notre monde numérique à la croissance soutenue. Cette mission importante, nous l'avons menée à bien dans la région UEMOA grâce à la mise en œuvre de l'eCFA par la BRM », a affirmé Jonathan Dharmapalan, fondateur et directeur d'eCurrency.

L'appli mobile « Djangui » crée des emplois au Cameroun

L'APPLI MOBILE « DJANGUI » crée des emplois au Cameroun. Une nouvelle application lancée par le Camerounais Jules Guilain Kenfack permet de sécuriser les transactions financières, et limite les tracas liés à l'organisation de tontines. D'après Kenfack, l'appli sert principalement à organiser des réunions ou des tontines en ligne en Europe et en Afrique, que ce soit sur Android, sur iPhone ou sur ordinateur.

« À mesure que les gens prennent connaissance des avantages de l'appli et que le nombre de clients augmente, de nouveaux emplois sont créés pour toutes les catégories de personnes », a récemment déclaré Kenfack. Plus de 4 500 personnes ont adopté l'application à travers le monde, dont environ 900 au Cameroun.

Le Burundi passe de la télévision analogique à la télévision numérique

LE GOUVERNEMENT BURUNDAIS s'apprête à lancer la transition de la télévision analogique à la télévision numérique qu'il a annoncée.

« A partir d'aujourd'hui, et pour nous acquitter des obligations internationales auxquelles le Burundi a souscrites à travers l'Accord de Genève 2006, notre pays va progressivement et sûrement assurer le passage de la télédiffusion analogique vers la télédiffusion numérique », a déclaré le président du Burundi, Pierre Nkurunziza, dans son discours lors de la cérémonie d'inauguration de la télédiffusion numérique qui a eu lieu en décembre, à la télévision nationale burundaise.

Nkurunziza a rappelé que le Burundi était censé mettre progressivement en place la télédiffusion numérique à compter du 17 juin 2015, et s'est excusé au nom du gouvernement burundais de n'avoir pas respecté la date fixée à l'origine. « Que tout le monde trouve ici les excuses du Gouvernement », a-t-il déclaré.

Nestor Bankumukunzi, ministre des Postes, des Technologies de l'information, de la Communication et des Médias, a précisé que même si la transition vers la télévision numérique avait été avalisée en 2006, la concrétisation de l'accord n'a débuté qu'en 2010.

« Plusieurs commissions ad hoc ont été créées pour préparer le terrain. Le cadre juridique et statutaire a également dû être défini. Il a ensuite fallu obtenir les fonds », a-t-il indiqué.

M. Bankumukunzi a loué la société Chinoise Exim Bank pour ses efforts, ainsi que le gouvernement Chinois pour sa participation à la fourniture de décodeurs de télévision numérique, qui a permis au projet de décoller.

Le président Nkurunziza a ajouté que la transition vers le numérique serait progressive: elle démarrera de la municipalité de Bujumbura, puis se poursuivra vers la province de Bujumbura, le centre du pays, et devrait finir par couvrir tout le pays. Le ministre de la Communication a annoncé que les possesseurs de postes de télévision analogiques recevront un décodeur de télévision numérique avant leur achat de postes numériques.

Djibouti investit US$56,9mn dans un câble sous-marin d'accès à Internet

UN CÂBLE SOUS-MARIN, qui fera bénéficier la corne de l'Afrique d'une redondance de l'accès à Internet, devrait voir le jour pour un coût de US$ 56,9mn.

Le Djibouti-Africa Regional Express (DARE), long de 4,700 km, devrait être fabriqué par un partenariat de gouvernements et d'opérateurs téléphoniques de la région.

Au Kenya, une participation de 11,1mn à la construction a été proposée aux actionnaires de The East African Marine Cable System (TEAMS).

Le TEAMS est l'un des quatre câbles sous-marins touchant terre au Kenya, et appartient à la fois au gouvernement et au secteur privé.

« Nous sommes en pleins pourparlers pour le câble DARE, mais les parties discutent encore du budget en interne. Aucun engagement ferme n'a encore été pris », a déclaré le directeur général du TEAMS, Joel Tanui.

Dans un récent entretien, le secrétaire principal aux TIC et à l'Innovation, Victor Kaylo, a souligné que le gouvernement étudiait lui aussi la proposition, et n'avait pas encore alloué de fonds au projet.

Le câble desservira le Kenya, la Tanzanie, Djibouti, le Yémen et la Somalie. Au début de l'année, Djibouti Télécom a annoncé avoir conclu des accords pour la construction et la maintenance du câble avec sept entreprises de télécommunications, dont aucune n'est kenyane. Toutefois, la société a précisé que la connectivité pouvait également être prolongée jusqu'à Mombasa.

Le DARE disposera d'une capacité de 20 térabits, surpassant largement tous les autres câbles reliant le Kenya. Le câble, dont l'achèvement est pressenti pour mai 2018, jouera le rôle de redondance pour l'actuel réseau de câbles sous-marins, et contribuera à satisfaire la demande locale croissante en accès à Internet.

M. Tanui a indiqué que là où le TEAMS est relié au trafic mondial via les Émirats arabes unis (EAU), le DARE y sera connecté via Djibouti.

Wireless apps providing the development catalyst

Wireless technology in Africa is surging ahead by leaps and bounds and is playing a crucial role in enabling economic activity to overcome the infrastructural handicap that has proved to be such an impediment to development in past decade.

Photo: Daniel M Ernst

Mobile telephony in Africa has grown rapidly over the last decade.

WIRELESS TECHNOLOGY IN Africa is surging ahead by leaps and bounds and is playing a crucial role in enabling economic activity to overcome the infrastructural handicap that has proved to be such an impediment to development in past decades. The convergence of new wireless technologies, low-cost handhelds, broad and reliable wireless coverage combined with the end-use innovations has opened the door to new possibilities. The rapid growth in mobile telephony over the past decade is the most documented form of wireless use in Africa.

Esoko deals with the problem of price discovery by enabling farmers in the rural regions to access the best prices for their products at local markets

However, it is the growth in wireless applications in health, agriculture and education that from a development perspective is perhaps the most exciting. At the Davos economic summit held earlier last year there was much talk about Africa's role in this "fourth industrial revolution". A number of apps and online stores that are based on Android-powered tablets with software to enable quick and easy ordering, inventory checking and real-time tracking, are springing up all over Africa.

Examples include Ghana's renowned CocoaLink project, which provides farming, social and marketing information to the country's cocoa farmers. CocoaLink was launched in 2011 as a public–private partnership programme between the Ghana Cocoa Board (COCOBOD) and the Pennsylvania US-based confectionary giant Hershey. Over the years, the project has been much studied and emulated as a positive example of the role mobile technology can play in rural development. This July, COCOBOD hosted a 23-member students' delegation from the Milton Hershey School, Pennsylvania, on an educational tour of the country's cocoa industry and to familiarise themselves with the operations of CocoaLink.

Also launched in Ghana is Esoko, which deals with the problem of price discovery by enabling farmers in the rural regions to access the best prices for their products at local markets. In July, the Alliance for a Green Revolution in Africa (AGRA) announced an US$867,788 grant to Esoko for the implementation of a 36-month MasterCard Foundation project to boost the supply of agricultural inputs for smallholder farmers. It uses an innovative technology solution called Fasiba. This is an M-Commerce solution, which facilitates the buying and selling of goods and services through wireless handheld devices such as cellular telephone and personal digital assistants (PDAs).

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In August, Esoko extended its reach into northern Ghana's Savannah ecological zone with the opening of a branch in Tamale. Northern Ghana is described as the nation's food basket and the aim of the branch is to link smallholder farmers to improve their efficiency. Esoko is also being used in more than 10 other African countries. Another example of wireless technology in agriculture is the 'iCow' app agricultural information service that is available as a subscription service in Kenya. The service helps farmers enhance the productivity of their cows. And by tracking each cow individually, it assists in the prevention and cure of milk related diseases by maintaining all the relevant information specific to each animal.

Meanwhile, the rise of mobile technology in Africa's health sector is also growing. The South African remote temperature monitoring solution provider Beyond Wireless recently showcased a wireless app in this crucial sector. In November, it announced the launch in Africa of a real time temperature monitoring solution ColdCloud. The technology, which is already available outside Africa, has been described by Beyond Wireless as "a simple, user-friendly African solution to the global challenge of monitoring the vaccine cold chain, which helps to prevent millions of deaths in third world countries."

In South Africa, it is used by the South African National Blood Service (SANBS), Dischem Pharmacy, United Pharmaceutical Distributors (part of the Clicks Group), Netcare pharmacy, and a number of other pharmaceutical companies. Beyond Wireless founder and chief executive officer, Ian Lester said, "The ColdCloud is the only solution available in South Africa, and one of only four in the world, that is WHO-PQS approved as well as ISO 9001:2008 certified." In February 2015, legislation was promulgated that required anybody who stores and distributes or sells vaccines to have a WHO Performance Quality and Safety (WHO-PQS) certified monitoring device on their refrigerators.

African countries are often ill equipped to transport, store and distribute vaccines. ColdCloud aims to combat this problem. It comprises a web portal and a GSM enabled battery powered remote temperature monitoring device called an ice3 that has a run-time of 7-10 years without the need to recharge or replace the battery pack. The device sits in the fridge and monitors power supply, door position and temperature, and escalates alarms via email, SMS and via a smart-phone app when anything goes wrong.

The solution is accessible from any standard browser or smart device with an Internet connection. The launch aims to align South Africa's pharmaceutical industry with international best practice. This 'best practice' includes constant temperature monitoring of vaccines at every leg of the cold chain, which must be stored between 2˚C and 8˚C. Being completely off the grid makes the ice3 immune to damage from spikes, surges, brownouts and blackouts.

Beyond Wireless has partnered with global NGOs and health organisations, including the WHO, UNICEF and the International Committee of the Red Cross, to monitor pharmaceutical and vaccine cold chains in third world countries. In 2017, the company will be embarking on a two-year study in collaboration with a major pharmaceuticals manufacturer to collect data to determine the true state of the cold chain.

The technology will aid in answering that question, although as Lester concedes, it's a complex issue because of the length of the supply chain and the number of different parties that are involved. But, as Lester says, "the technology is in our opinion still ahead of its time... I believe the market will be ready for it in three to five years from now when real-time temperature monitoring and stock management becomes a de facto part of refrigeration technology."

But despite the success of this and similar apps in South Africa rolling this type of technology out continent-wide, it faces a number of daunting communication challenges. According to data compiled by Disrupt Africa and released at this year's Africa Digital Summit, there is a wide disparity of opportunity for e-tech, which is very unequally spread across Africa. Findings from the International Telecommunication Union (ITU's) 2015 Measuring the Information Society Report conclude that the chances of accessing the Internet and benefitting from it are considerably higher within the urban area of an African country with a coastline, than anywhere else.

In addition, the top three destinations for tech investors are still South Africa, Nigeria and Kenya both in terms of numbers of deals and total amount of funding. Until this inequality is dealt with, access to e-services will remain patchy thereby hampering the realisation of wireless technology's full potential for development in Africa. ✆

Photo: Beyond Wireless

The ColdCloud solution from Beyond Wireless.

"Mobile money services have gained momentum in a number of countries across the continent, led by operators, like Orange looking to add to their portfolio value-added services."

- David Mureith
executive vice president
Vivo Energy

"The net effect of placing caching servers in Nairobi is that customers can pull video content from much closer to home, which means faster response time and less buffering."

- Mike Raath
head of distribution
ShowMax

"Finding the right information is a daily challenge for telco engineers tasked with boosting network quality. MIKA taps into the power of the Nokia AVA platform to provide quick and accurate answers, avoiding time wasted on fruitless searches."

- Igor Leprince
head of global services
Nokia

"The commitment by MTN to sponsor the GHA initiative will help to further develop a Pan-African perspective of the history and prospects of the continent and its diasporas, based on scientific findings."

- Ali Moussa-Iye
chief: history and memory for dialogue
UNESCO

"The digital revolution has sparked a new age of communication. New, branded digital experiences including messaging apps, chat bots and the IoT, have crept into the mobile market, and consumers expect instant connectivity and seamless services, wherever they are in the world."

- Daniel Kurgan
chief executive officer
BICS

"As Liquid Telecom continues to grow, we are committed to maintaining our entrepreneurial spirit, encouraging innovation and delivering on our vision of a more connected Africa."

- Nic Rudnic
group CEO
Liquid Telecom

"We are pleased to continue helping MTN to grow its digital services and look forward to developing the next generation of digital services for the African consumer."

- Jay Patel
chief executive officer
MTN

"With the Ecobank mobile app, Ecobank customers can now make and receive instant payments across 33 African countries on their mobile devices. They can also pay in store with their mobile phones. This is genuine convenience delivered to our consumers, Kalonzo said."

- Alice Kalonzo Zulu
managing director
Ecobank

"2017 is the year that bitcoin could solve a major geopolitical problem and come to the rescue of an entire nation. Nigeria's 60 million dollar has been interrupted in the ongoing currency wars that have disrupted nations such as Venezuela, Argentina and Russia etc."

- Ray Youssef
chief executive officer
Paxful

Tackling cybercrime wave in Africa

The fight against cybercrime looks as uncertain as ever across Africa. A new study by Liquid Telecom identifies that African businesses are under mounting pressure to enhance cybersecurity across their operations.

AFRICAN BUSINESSES ARE failing to take necessary steps to protect themselves against data breaches. Many organisations have experienced multiple security breaches within the last 12 months. The region could be facing a skills shortage as businesses struggle to find trained and qualified cybersecurity professionals.

These are just some of the concerns highlighted by businesses in new research conducted by Liquid Telecom. The study is one of the first of its kind evaluating how heavily the issues of cybersecurity and data protection weigh on the minds of employees at African businesses today.

In order to gather the data, Liquid Telecom surveyed 269 respondents from the business community. Respondents drew experience from a wide range of industries with IT professionals featuring heavily (more than 31 per cent) as did the finance community (14 per cent). More than 40 per cent of respondents work for microbusinesses and small organisations, while just over a third are employed by small to medium sized businesses with under 1000 employees. Large enterprises with more than 5000 employees make up just 12 per cent of respondents.

Facing up to security breaches

In the wake of soaring internet use across the region, and the rise of the continent's digital economy, comes the threat of damaging and increasingly sophisticated cybercrime. Incidents of cybercrime are on the increase across the region and globally, prompting the business community to raise its game or risk the financial devastation caused by a cyberattack or data breach.

Security breaches are worryingly commonplace across Africa. According to the survey, an astonishing two thirds of respondents have experienced a security breach in the last 12 months. Almost 10 per cent of respondents claim their organisation has suffered more than 10 security breaches, while almost half state they have encountered between one and five security breaches.

It is also clear that African businesses are failing to take enough precaution to prevent data breaches. More than 40 per cent of respondents believe African businesses could be doing more to protect themselves from data breaches, while almost a quarter feel the region is falling significantly behind global standards.

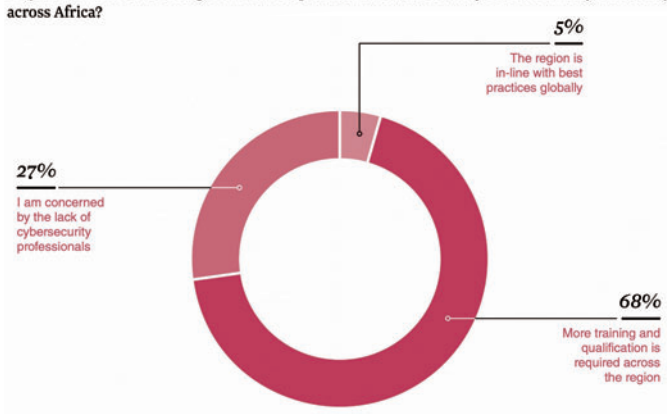
Mind the skills gap

A skills crisis could be emerging across Africa, with the survey results indicating there is a limited pool of cybersecurity talent. Over two thirds of respondents believe more training and qualified cybersecurity professionals are required. Furthermore, over a quarter of respondents express genuine concern over the lack of qualified cybersecurity professionals in the region.

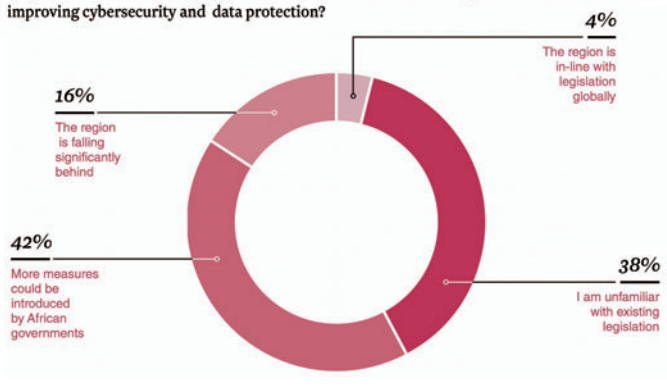
With demand for cybersecurity on the rise in Africa, filling positions could become an increasingly hard process for businesses. African enterprises are running into what is, in truth, a global problem – a desperate shortage of people with the right skills and experience to combat cybercrime.

Neither Africa's corporate training departments nor its public education sector are producing talented people at a fast enough rate to match the evolving nature of the problem. Tough economic conditions are tending to apply downward pressure on business ICT training budgets at a time when they should be increasing, loading added pressure onto existing staff. And governments are in many cases failing to play their part by not putting enough resources into national skills development programmes.

Do you think there are enough skills and expertise in the area of data protection and cybersecurity across Africa?



Do you think there is enough legislation in place across Africa to support businesses in improving cybersecurity and data protection?



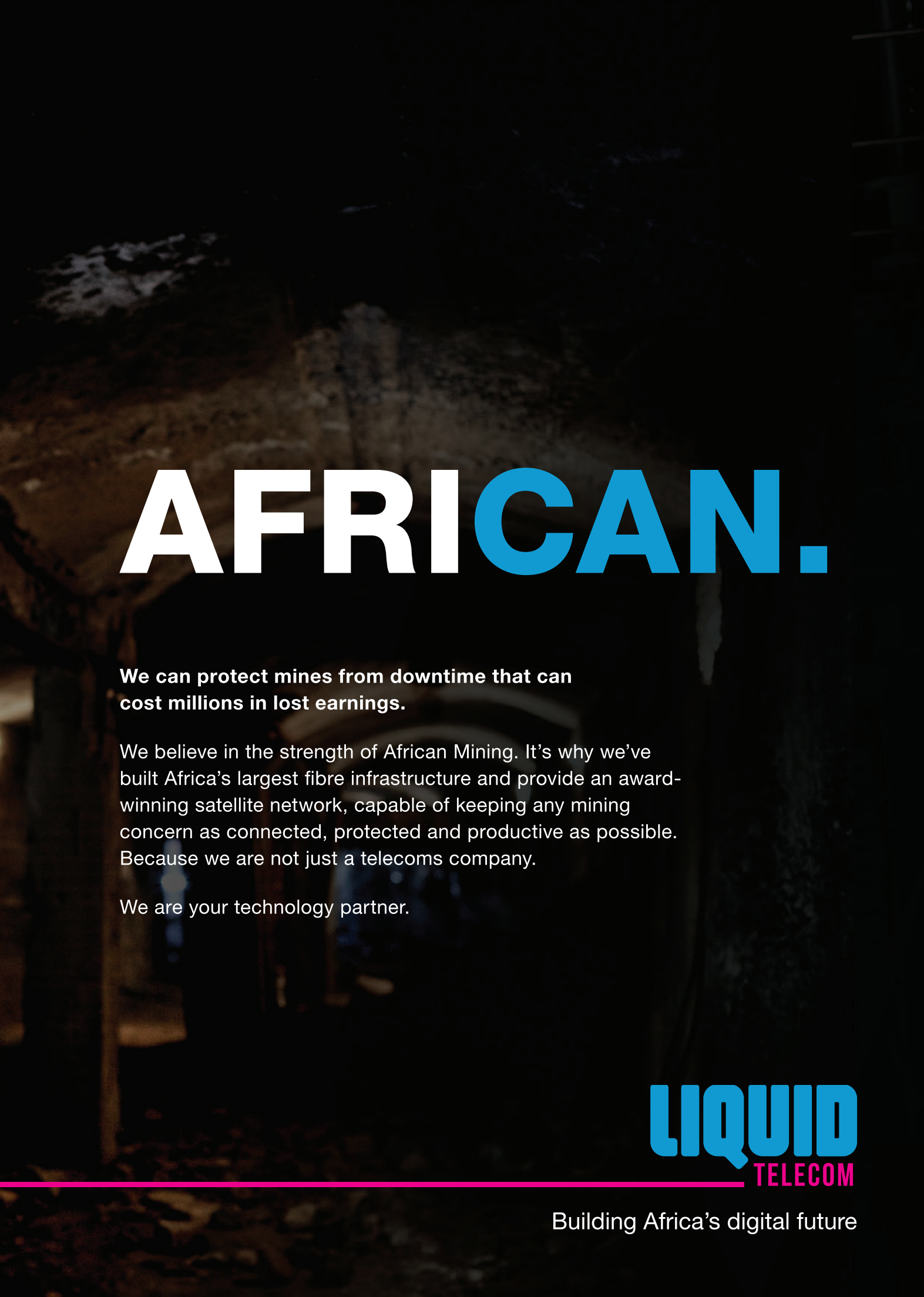
An alarming response

It is difficult to determine which is the more alarming statistic: that more than 40 per cent of respondents believe African governments should be introducing tougher legislation to support businesses in their fight against cybercrime, or that almost 40 per cent aren't even familiar enough with existing legislation to fully answer the question. What is clear, however, is that data protection legislation is a grey area for many businesses across Africa. Data protection legislation is evolving quickly across the region and businesses must keep up.

Developments to data protection legislation could be a deciding factor for businesses looking to expand across Africa, as they aim to avoid places where the integrity of data is set at a low premium, or where they might get hit hard by protectionist and maverick data laws designed to seal borders and favour domestic enterprises.

Establishing a regulatory framework that both protects citizens and allows for healthy economic development should be the end goal for many African nations. As in the long run, getting cybersecurity and data protection right will benefit all parties – consumers, businesses and governments alike – which is why now is the time for positive action. ✆

To download Liquid Telecom's full Cybersecurity & Data Protection Africa Report for free, visit www.liquidtelecom.com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Managing power consumption at the cell site

Reducing the energy consumption in wireless networks is one of the biggest challenges facing mobile network operators (MNOs) today. From both OPEX and environmental perspectives MNOs must find new ways of cutting the amounts of power their networks consume and one way is managing energy use at BTS sites where most power is consumed, as well as sharing those sites with other operators. Tim Guest reports.

Intelligent Power Control

BTS sites along with the towers and equipment that comprise them are the main infrastructure element in any wireless network and consume the most power across an MNO's operations. It is imperative, therefore, that ways are found to manage this consumption more efficiently. In arid regions, including many in parts of Africa, just keeping a base station cool through the use of air conditioning can account for a huge percentage of the overall power consumed by the actual BTS and its associated telecoms equipment.

As the growth of high data rate wireless applications has exploded, energy efficiency has increased in importance and cost/opex concerns are forcing operators to look at new ways to manage their equipment intelligently. Ensuring most energy use at the cell site and BTS takes place at times of highest demands and least use at off-peak times when demands are low, is crucial. And while the knock-on effects of efficient BTS management and lower power consumption will, inevitably, be good news for the environment, the financial rewards for the MNOs are key to remaining viable. This is why much focus now is on the design of energy-efficient network elements, including mechanisms for the remote power management – switching on and off – of BTS sites, among other network planning and management solutions.

"MNOs across Africa have realised that tower sharing is now an essential strategy to reduce their opex.

What some operators and researchers are currently looking into is the use of intelligent algorithms for switching off base stations when they are not needed across a network. Designed to handle the fullest demands of subscribers at the highest peak times, base station elements will continue 'firing on all cylinders' and consuming power even when user demands are lowest. Understanding when these periods are and which BSs have lowest off-peak rates of traffic, thereby making them more suited to switch-off than others, will enable MNOs to implement a management strategy that conserves power intelligently across the network. Knowing exactly what the traffic load variations on the network are, as well as the distance between different BSs and associated users – numbers of regular users can be identified and associated with a given BS location - will help in calculating the most energy efficient combination of switched off and active BSs. This will enable the MNO to put the management strategy into effect and turn off BSs progressively during periods of lowest traffic levels.

Eaton Towers provides tower sharing on BTS towers across Africa, including Kenya. (Photo: Eunika Sopotnicka)

With the major boom in the use of mobile broadband and the continuing uptake of smart devices and tablets, the traffic loads experienced by MNOs including those in Africa, continue to grow. Tech-hungry urban users increasingly are aiming to catch up with the rest of the world in the technology stakes ensuring that MNOs stay ahead of their game. LTE, LTE-Advanced, 4G/5G all promise anywhere - anytime connectivity with higher data rates for mobile devices. As a result, more infrastructure is being rolled out to support the increases in the volume of mobile traffic expected,

Infrastructure sharing at the cell sites helps keep BTS costs down. (Photo: liseykina)

"Ensuring most energy use at the cell site and BTS takes place at times of highest demands and least use at off-peak times when demands are low, is crucial."

but reducing the energy consumption of BSs is on the drawing board for all future technology operators. And while improving the hardware and developing power amplifiers that consume less energy is one approach, it will still be down to a BS management strategy of switching off unused or low-use BSs that is key to making a significant difference.

Tower Sharing Keeps BTS Cost Down

Like any other operators, African MNOs are facing increased demands for data services as more people use smart phones and demand mobile broadband and Internet access, as well as increased use of voice services as price competition increases. But with network roll-outs and operating costs considerably higher in both urban and rural Africa than many other regions, such demands mean higher costs overall, due to average revenues per user continuing to fall, particularly in remote rural areas. Keeping costs down and finding new ways of reducing operating costs such as the intelligent management of power as outlined above, are as relevant in Africa as anywhere else, but infrastructure sharing at the cell site is also a way of keeping the costs of running a BTS down.

In Europe, India, the US and may other regions, including Africa, tower sharing is now a proven business model; indeed, MNOs across Africa have realised that tower sharing is now an essential strategy to reduce their opex, while they themselves get on and focus on their core customer service offerings. As the world's fastest growing telecoms market, it is understandable that tower sharing in Africa is rapidly increasing and, according to specialist tower company, Eaton Towers, at least 50,000 additional towers, equating to around US$7.5bn of capex, will be needed to support the mobile telecoms boom in Africa over the next five years. Eaton Towers provides tower sharing on more than 5,000 BTS towers in African countries, including: Ghana, Uganda, Kenya, South Africa.

"Tech-hungry urban users increasingly are aiming to catch up with the rest of the world in the technology stakes ensuring that MNOs stay ahead of their game."

The company has 10 years to run on 15-year management deal with Telkom Kenya, which operates Orange's mobile and fixed-line telecommunications services in Kenya, covering its existing portfolio of more than 1,000 towers and focused on both the maintenance of existing sites and the building new sites. One of the practical management and cost-saving/power-saving actions of Eaton's work was the ability to reduce operational costs and minimize the environmental impact of the network by reducing the use of diesel fuel in powering the BSs. This deal, also represented an important step forward in efforts by the MNO to improve efficiency and control operating costs across the operator's footprint in Africa, with the sharing of passive infrastructure being a key part of this strategy - similar deals have already been struck in Uganda, Cameroon and Côte d'Ivoire. ✆

AfricaCom 2016 brings together a host of exhibitors

The annual AfricaCom exhibition in Cape Town in early November attracted more than 11,000 attendees, a record according to organisers KNect365 (previously known as Informa).

UNFORTUNATELY THE EVENT clashed with the ITU's Telecom show in Bangkok with many ministers and regulators choosing to fly to Bangkok instead.

However, this didn't affect the quality of the debate with the show reflecting continuing optimism and increased investment in the market with new products and services unveiled and a focus on innovation.

Interestingly the attitude of MNOs towards Facebook's internet.org has noticeably mellowed despite the pressures that it, and the other OTT players, continue to cause. There is a growing realisation that, by working together, OTTs and operators can build something that benefits them both. However, despite Internet.org's progress, as ever, spectrum access, the use of USF funds and interconnection were raised as issues which regulators need to address to help encourage investment into the rural market.

The event welcomed more than 11,000 attendees. (Photo: Informa)

For the second year running, AfricaCom featured The AHUB which provides a home for the tech startup ecosystem and is a nod towards the growing importance of the startup scene within the overarching African tech landscape.

Conversations revolved around the importance of spreading connectivity, establishing cities as tech hubs, and attracting more investments into African tech startups. The latter was a particularly hot topic, with startups attending the event given the opportunity to attend speed-dating sessions with a large number of investors on-site, and nine mobile startups pitching their innovations to the audience.

The Disrupt Africa African Tech Startups Funding Report launched at the show suggests that more and more startups are securing investment in Africa, and events such as the AHUB will hopefully speed this process by providing an arena for startups and investors to connect.

The AfricaCom awards were once again a highlight with the usual suspects of Orange, PCCW, Huawei, Mahindra Comviva and Liquid Telecom picking up awards alongside smaller players such as Kenya's BRCK for its Digital Classroom in a box and World Telecom Labs (WTL) being named as the Best Connectivity Solution for Africa for its rural portfolio.


A number of networking events took place at the show. (Photo: Informa)

Ericsson forecasts that data traffic in sub-Saharan Africa will grow by around 55 per cent annually between 2016 and 2022.

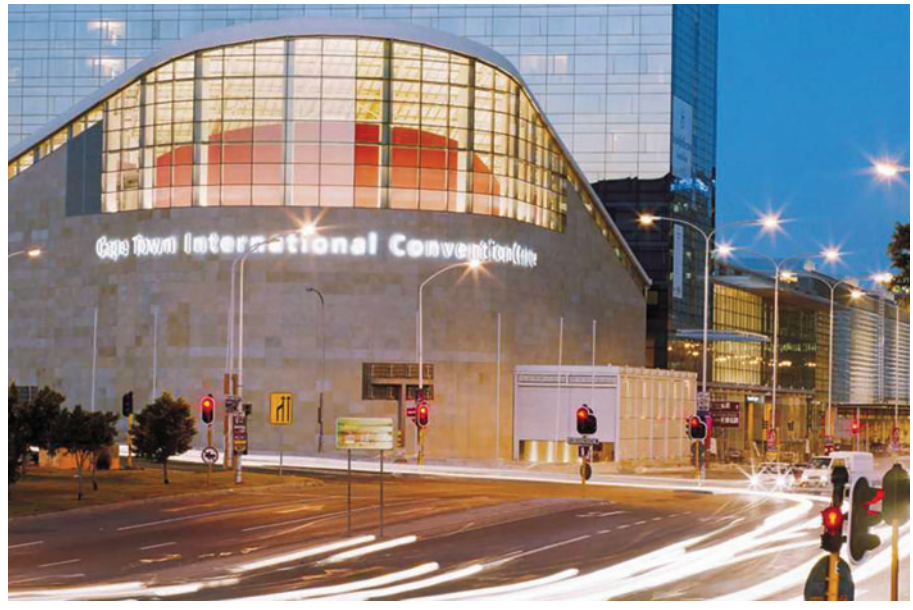
Running alongside, but independently of AfricaCom, The 2nd Apps Africa awards attracted a large crowd of innovators and their investors. African app of the year went to Sliide Airtime, which provides its users with free airtime and access to a wide range of content in return for viewing ads and sponsored content. Launched in Nigeria in March 2016, Sliide Airtime will be expanding into South Africa shortly.

The debate at the show has firmly moved on from dumb pipes with MNOs now accepting that innovation from across the ecosystem will be the driver for increased data usage.

Ericsson published its sub-Saharan Africa Mobility Report which outlined how mobile data traffic growth is being driven by increased smartphone subscriptions, more viewing of video content, wider network coverage, continued reduction in prices of both devices and services and a growing population.

Ericsson forecasts that data traffic in sub-Saharan Africa will grow by around 55 per cent annually between 2016 and 2022 with a dramatic shift from a majority of GSM/EDGE-only subscriptions, to around 83 per cent of all subscriptions on WCDMA/HSPA and LTE.

With this in mind, the debate about how continued fibre builds will be essential to the success of LTE rollouts was particularly relevant.



AfricaCom 2016 took place at the Cape Town International Convention Centre in Cape Town, South Africa. (Photo: VDMMAa/wikimediacommons)

"Signs abound of an increasingly loud FTTH revolution in the African continent"

- Guy Zibi, analyst, Xalam Analytics

Fibre builds continue across the continent with Liquid Telecom leading the way; the company said that it is laying more than 100 km of new fibre every week. According to Guy Zibi, an analyst at Xalam Analytics, "signs abound of an increasingly loud FTTH revolution in the African continent. Markets such as Nigeria and Kenya are leapfrogging ADSL and going directly to fibre for ultra-high speed broadband. In markets like Tanzania, Cameroon or Congo-Brazzaville, older, typically state-owned telcos that largely missed the mobile revolution see in FTTH (along with LTE) a unique opportunity to rejuvenate their businesses."

Xalam predicted that the total number of FTTH connections in Africa will triple over the next four years to reach around 1.7mn, and this with conservative rollout assumptions in ADSL-heavy Egypt.

With falling wholesale prices in the larger African markets, there was a lively debate about whether Africa can sustain additional subsea cables: there are currently four new international cable projects – one on the West Coast and three on the East Coast of the continent, the latter all proposing a similar route. These will continue to reduce wholesale capacity prices and, of course, the big question will be how far these savings get passed onto the end-customer.

Satellite continues to be a key technology in Africa with the ongoing increase in capacity across all markets and verticals driving new developments and technological breakthroughs. There were a multitude of satellite announcements during the show: O3b Networks announced that Gilat Satcom is now using its network to provide customers in DR Congo with latency and throughput comparable to fibre; Newtec showcased its multiservice platform Newtec Dialog which gives operators a choice of three technologies – TDMA, SCPC and Newtec's Mx-DMA which combines the best features of both.

Other interesting news at the show included new research from AdaptiveMobile, a company that specialises in mobile network security. It revealed that mobile operators in West Africa are the highest target for SS7 attacks in the continent; 65 per cent of all operators surveyed were affected by location tracking attacks; and 100 per cent of operators were affected by subscriber harvesting attacks. However, the research summised that most operators are aware of the need to protect themselves against a range of attacks, including location tracking and call interception.

There are a number of other events in Africa which are now snapping at the heels of AfricaCom: Extensia's much-respected IAD (Innovation Digital Africa), which attracts ministers and regulators; the GSMA's Mobile360, which takes place in Tanzania in July; and The Africa Tech Summit in London, which debuted in September and is taking place again in April.

However, it's clear that AfricaCom is still the place to see and be seen. See you next year! ✆

AfricaCom 2017 runs 7-9 November in Cape Town.

Bridging the digital divide through wireless technology

Cambridge Broadband Networks' (CBNL) CEO Lionel Chmilewsky speaks to Communications Africa about how wireless technology is revolutionalising Internet connectivity across the continent.

Lionel Chmilewsky, CEO, CBNL (Photo: CBNL)

APPLICATION OF WIRELESS technology for connectivity has seen tremendous growth in the past few decades. With the shortcomings of fibre connectivity including high installation costs, long deployment time and constraints in productivity and operation, wireless technology is growing in popularity among operators and consumers in Africa.

British company Cambridge Broadband Networks (CBNL) provides extensive point-to-multipoint (PMP) microwave backhaul and enterprise access networks on 2G, 3G, LTE and 5G across Africa. CBNL also provides residential access, which delivers residential buildings and apartments with a high level of connectivity. The company has more than 25 customers across 15 African countries and works with Tier 1 operators like MTN, Vodacom and Airtel on the continent.

Exploring the potential of point-to-multipoint connectivity

Point-to-multipoint communication refers to communication that is accomplished through a distinct and specific form of one-to-many connections, offering several paths from one single location. CBNL has played a major role in expanding the potential of point-to-multipoint technology in Africa. Speaking about the benefits, CBNL CEO Lionel Chmilewsky points out that it allows the operators to virtualise the infrastructure at the hub site and eliminates the need for elaborate infrastructure development. Since the technology operates through a hub that distributes and transmits capacity to the remote terminal, it requires only one piece of equipment at the hub and can have as many remote terminals as needed.

> **"Wireless is the perfect technology when you are starting on greenfield and when you have a combination of remote areas and urban areas."**
>
> **Lionel Chmilewsky, CEO, CBNL**

Point-to-multipoint solutions deliver cost savings and the time to deploy is also very short compared to traditional networks because once the infrastructure is active at the hub, incremental remote terminals can easily be added in the network.

"I think that is a very good solution, especially for SMEs because you can start with a small network and then you invest as you grow," he comments.

"This is a very good solution for Africa because it is very affordable, delivers high performance and is quick to deploy. Wireless is the perfect technology when you are starting on greenfield and when you have a combination of remote areas and urban areas. This is the perfect solution to connect the unconnected. This is why it has been very successful in Africa for the last 10 years."

Chmilewsky says that CBNL has been working in Africa almost since the company was established. The reason is that the company offers a solution that allows operators to deploy a network cost efficiently and quickly when they do not have existing cable or fibre infrastructure. CBNL provides licensed point-to-multipoint networks – licensed because the operators need to have obtained the regulator licence to deploy.

The best thing about wireless technology is that you can leapfrog from a 2G network to a 4G network"

Lionel Chmilewsky, CEO, CBNL

Describing the potential of wireless to meet the challenge of the exponential rise in demand for data in Africa, Chmilewsky says, "The demand for data is a worldwide phenomenon. If you look at how people use their smartphones or their computers, downloading, video streaming, cloud services and voice over IP are being used increasingly. All of this consumes a lot of data. In the future, there will also be greater demand for Internet of things and machine-to-machine. In the next five years, a range of 50bn machines will be connected worldwide in machine-to-machine. All of this will require very high capacity on the network. This is why high capacity wireless solutions are picking up very quickly."

Point-to-multipoint connectivity helps to reduce the amount of infrastructure necessary to set up a network. (Photo: Elena Ramburger/Shutterstock)

Expanding 3G-4G backhaul

Speaking about CBNL's efforts to expand 3G and 4G backhaul in Africa, Chmilewsky stresses the major role played by wireless.

"The best thing about wireless technology is that you can leapfrog from a 2G network to a 4G network."

Affordability of the solution is a commonly faced challenge in the development of backhaul.

However, point-to-multipoint allows operators to have a much lower total count of ownership (TCO) than other technologies and some independent reports have quoted 30 to 50 per cent TCO savings with the technology.

"CBNL is spending a lot of time in educating and training our customers to make sure that once they have a network in place, they will make the best use of that network," Chmilewsky says.

Network systems virtualisation

Network systems virtualisation refers to the use of software to allow system hardware to run multiple instances of different operating systems concurrently. This allows different applications requiring various operating systems to run on one computer system.

One of the key benefits of network systems virtualisation is that it reduces the amount of hardware in the network to the lowest possible minimum.

Chmilewsky explains the CBNL approach as, "The way we are doing it with our point-to-multipoint technology is by using the one piece of equipment at the hub site through what we call ecolomultiplexing. That is using the peak and mean of a conversation in order to optimise the number of subscribers you can route on a sector. Not everyone is talking at the same time, not everyone is transmitting at the same time and our technology uses the blanks of a transmission or a conversation to create more remote terminals".

This allows all users in the network to potentially have full capacity. Chmilewsky says, "That is the beauty of virtualisation, the beauty of the technology that we use."

Another advantage of the technology is that it allows operators to oversubscribe. "Basically, they can create more users than they do in the point-to-point technology and we believe that the ratio that could be used with the technology is a factor of four. So, it is possible to sell up to four times the capacity that the network can provide. Let us say you have a network that can provide 1.2GB per sector, you can probably sell 4.8GB per sector. This is something that finds a very interesting application in Africa."

The multiple benefits offered by wireless technology continue to make it a key tool in delivering connectivity across Africa. ✆

Zambian government to transform country's digital landscape

The Zambian government is enhancing the utilisation of information and communication technologies (ICTs) as an anchor for national development and transition to a digitally-enabled economy by 2030.

AT PRESENT, THE government has embarked on several ICT infrastructure development projects to improve access and reach, technological base, minimise financial exclusion, increase transparency and reduce response time in terms of information dissemination to citizens.

Regulation of the sector

The industry is regulated by the Zambia Information and Communications Technology Authority (ZICTA), which was founded after the implementation of the Information and Communications Authority (ICT) Act of 2009. ZICTA also regulates postal and courier services in the country.

On the backdrop of the liberalisation of the communications sector in the early 1990s, the telecommunications, broadcasting and ICT sectors have undergone a major transformation over the year, such as the provision of mobile telephony and Internet services.

Innovations

Infrastructure innovations encompass the national fibre–optic project, with access to international submarine fibre-optic cables, leading to significant price reductions for broadband services.

Additionally, 3G and 4G services have been launched with the number of mobile broadband subscribers increasing substantially. A number of Internet service providers (ISPs) have also rolled out WiMAX wireless broadband network.

Access to ICT services has improved tremendously after the government installed more than 200 communication towers in unserved areas across Zambia.

"More than 200,000 people in rural areas have since been connected due to this intervention," the Ministry of Transport and Communications said.

Sector status

Mobile telephony services have grown substantially, with a market penetration rate of 78 per cent as of the second quarter of 2016, compared with fixed line penetration rate of 0.7 per cent. According to ZICTA, Zambia has 6.1mn Internet users, representing a penetration rate of 39 per cent.

Research from ZICTA has revealed that there are 6.1mn Internet users in Zambia. (Photo: IICD)

Access to ICT services has improved tremendously after the government installed more than 200 communication towers in unserved areas across Zambia.

The three major players in the mobile market are **MTN Zambia** (46 per cent); **Airtel** (40 per cent) and **Zamtel** (14 per cent).

Vodafone Zambia entered the market in June 2016, offering high-speed 4G and Wi-fi data services as part of a US$40mn deal between Vodafone Group and 4G operator **Afrimax Group.**

"We have pioneered something completely new to the Zambian market. Customers can now choose from the daily, weekly or monthly validity options for a boundless Internet experience," said company chief executive officer, Lars Stork.

Recent developments in ICT

Zambia's ICT sector is on an upward trend and delivering sustainable development to the country's economic configuration, recent developments in the country's ICT sector include:

- The launch of a next generation Wi-Fi service by Vodafone Zambia.
- E-government has been rolled out as a critical component of Zambia's transformation in the sector, allowing people to access a number of government services such as applications for passports and title deeds, payment of selected public services, registration of companies and filing of annual returns.
- A National Data Centre has since been launched under the Smart Zambia project aimed at improving coordination and implementation of ICT programmes.
- **CEC Liquid Telecom** has partnered with Telplus Communications Limited to roll-out fibre optic solutions in the country with a view to extending the service to east and southern Africa in the long-term.
- CEC Liquid Telecom has also introduced its fibre-to-the-home service which enables homes and businesses to receive 100Mbps, the fastest broadband ever in Zambia.
- MTN Zambia invests US$50mn in infrastructure upgrades. ✆

Nawa Mutumweno

4G network planning in sub-Saharan Africa: failing to prepare is preparing to fail

Digital inclusion remains a key priority for sub-Saharan Africa. The ability to better connect growing economic powers across the region is critical to ensuring ongoing prosperity.

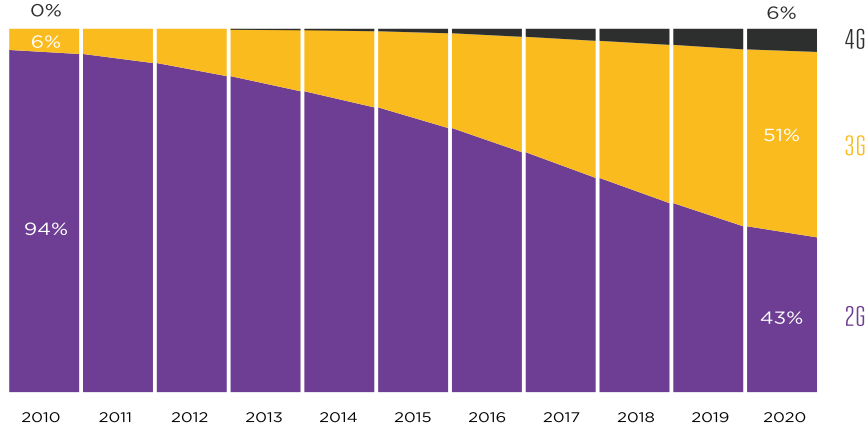
THIS IS NOT simply limited to the ability to make phone calls – the true value lies in the enablement of broader services like mobile money, the ability to boost digital literacy and in turn, GDP.

Sub-Saharan Africa can't get connected soon enough, and actually, is making good progress. According to the GSMA, 4G has now been launched in 23 sub-Saharan countries (although 4G will account for just six per cent of overall mobile broadband connections in the region by 2020). Making sub-Saharan Africa a 4G stronghold will take time. Mobile operators in the region face a variety of challenges that will continue to inhibit progress before the networks can even be built. This includes sourcing the infrastructure (including backhaul), negotiating network sharing deals to viably cover rural areas, purchasing spectrum and getting permission from regulators.

Source: GSMA Intelligence

Africa: Technology shift ongoing

Percentage of connections



A careful balancing act

With so many hoops to jump through, operators in sub-Saharan Africa can be forgiven for wanting to take their time before deciding how 4G networks can be best rolled out. Ultimately, different operators in different regions will face different challenges. There are a number of issues that transcend borders, however, and impact almost all operators in the region. The first is spectrum availability and viability. Much like established 4G countries, African operators have the benefit of purchasing high and low frequency bands to cover dense urban and broad rural environments respectively. Geographical challenges, economic constraints and a widespread lack of fixed line infrastructure means low frequency spectrum will take precedent.

Leveraging low frequency spectrum is the most effective means to deliver broadband coverage to wide areas. The further and thinner the bandwidth is spread however; the more limitations are placed on available throughput. As a result, it is likely that the vast majority of 4G connections in sub-Saharan Africa will be of lower speed than in other parts of the World. However, the absence of ubiquitous fibre also creates a major headache for African carriers when it comes to backhaul provision. Currently, existing 3G networks are primarily backhauled using microwave technologies. While this is capable of supporting decent network speeds, it will not be sufficient to support the greater requirements of 4G connectivity, let alone 5G. This microwave infrastructure, if it is to be used for 4G, will require significant upgrade at a hefty price point.

With big cost implications, operators must be sure that they know where base stations should be placed to deliver the best possible user experience to the maximum number of people and guarantee an ROI. This means they must be selective in where they place 4G sites – blanket coverage without paying attention to likely utilisation will lead to a sub-optimal network. Operators must therefore know where their high ARPU users reside, where they go and what they do. Network analytics exist to provide this view of customer behaviour.

No second chances

These and other factors mean that operators must go into meticulous detail when planning 4G networks. Service quality degradation is after all, a massive deal in a region that is home to some of the world's most impulsive and impatient mobile users. Sub-saharan Africa is prepaid-dominated and also a multi-SIM culture. Operator loyalty simply does not exist. Marketing departments within these operator groups devise targeted offers to their customers on a regular basis to retain them. Put simply, a dropped call could see a user jump to a competitor in an instant. The absence of long standing contractual customer relationships makes overall 4G network economics an even more tenuous prospect.

Outsourcing the responsibility while seeking third party validation

With so much at stake, there is little wonder that the majority of the largest operator groups that control the region opt for managed services when it comes to the management of their network operations. Large operator groups in the region can use their broad coverage and financial muscle as leverage when negotiating the most favourable rates from network equipment vendors.

The rise of these outsourced deals also reflects the dearth of required skills and expertise from within the operators themselves to manage network planning directly. Sub-saharan operators can benefit from 4G best-practice from other parts of the world that are further ahead in their network migrations. That being said, most operators work with additional third party network planning experts to validate the recommendations made to them by their incumbent network management vendor. This trend is rising in popularity as operators are mindful of the need for complete objectivity and resisting becoming too locked in to one particular network supplier. ✆

How connectivity is opening up infrastructure across Africa

In the Western world utilities are often taken for granted. The majority of citizens live in a house with water, electricity and gas automatically connected and monitored on meters; very few will even consider the prospect of life without what they see as basic necessities.

THERE IS NO starker contrast to the Western world's approach to utilities than in Africa. 115 people in Africa die every hour from diseases linked to contaminated water, while 589mn habitants live without electricity.

However, mobile technology is already starting to change the shape of utilities across the continent, so much so, that other regions could learn from the IoT deployments which are already changing lives.

Paul Marshall from Eseye, a leading global cellular machine-to-machine connectivity provider for Internet of Things devices, investigates the opportunities of mobile-enabled utility services worldwide, and how Africa is a prime example of how connectivity is allowing them to be delivered in the most remote locations.

M-Kopa's D Light solar home system. (Photo: M-Kopa)

Unplugged

Accessing utilities in the Western world is relatively straight forward. For instance, if you want to connect a phone line to your home, you contact a local phone company, give them your address, bank details etc. and the provider runs a credit check on you and if you pass, connects you to the network.

Phone companies understand you have credit in place to pay for the service in advance, as you have an address and are associated with a bank, and have a measurable credit rating. However, if you are one of the millions of people across Africa who are 'unbanked' the process is not nearly as easy.

Without credit how do you show a provider it is worth building a phone line and connecting you to its service? How can you guarantee its investment in you and in your phone line is going to pay off?

More importantly, it is staggering to see how this system for phone connectivity is the same as issues faced when looking at essential infrastructures such as water, waste disposal, electricity, or any utility the Western world now takes for granted.

Forced to innovate

If this problem was faced in the UK, various organisations would compete to build roads, infrastructure or whatever was required to allow the service to be sold and delivered. However, across Africa, organisations don't have this option. Instead they are forced to find alternative solutions to solve the problem and drive innovation as they do so.

Most are turning to the one universal infrastructure that exists across the world; the mobile network. As with the mobile expansion across Europe in the 90s, Africa saw the same expansion, giving the continent its only universal utility service. In fact more than double the population in sub-Saharan Africa has mobile phone access compared with access to paved roads.

Therefore businesses looking to deliver utilities in African countries are surpassing their Western world counterparts; maximising the mobile network to deliver innovative utility services to millions.

Come to the light side

One such business delivering utilities in innovative ways is M-KOPA. M-KOPA has provided light to more than 400,000 homes across Kenya, Tanzania and Uganda by offering solar-power home systems for low income and rural residents without electricity.

This is achieved by building mobile connectivity into its technology. This then allows customers to light their homes by paying for the device through mobile money transfers.

After finishing the payment plan, the customer owns the product and can then access more cost-effective financing for a range of products, including more lights, television sets, cooking stoves, smartphones, and water storage tanks.

Therefore by utilising the mobile network, M-KOPA is delivering services to 'unbanked' people; people who would have not had access to finance services.

Wider impact

M-KOPA isn't the only business successfully innovating in Africa. EWaterPay in West Africa for example has developed a sustainable solution which allows local water distribution schemes to become self-sustaining. It's a business model which also has the potential to be implemented on a wider scale across the continent. Mobile Money, NFC (Near Field Communications) Secure RFID tags and cellular communication all play a part by allowing secure financial transactions, the delivery of clean fresh water and trained local engineers paid to manage and maintain the system.

Innovations such as these, are allowing mobile connectivity to have a wider impact. By ensuring people have access to credit and services, organisations can open further access to infrastructure, increase job opportunities and deliver a boost to local and national economies.

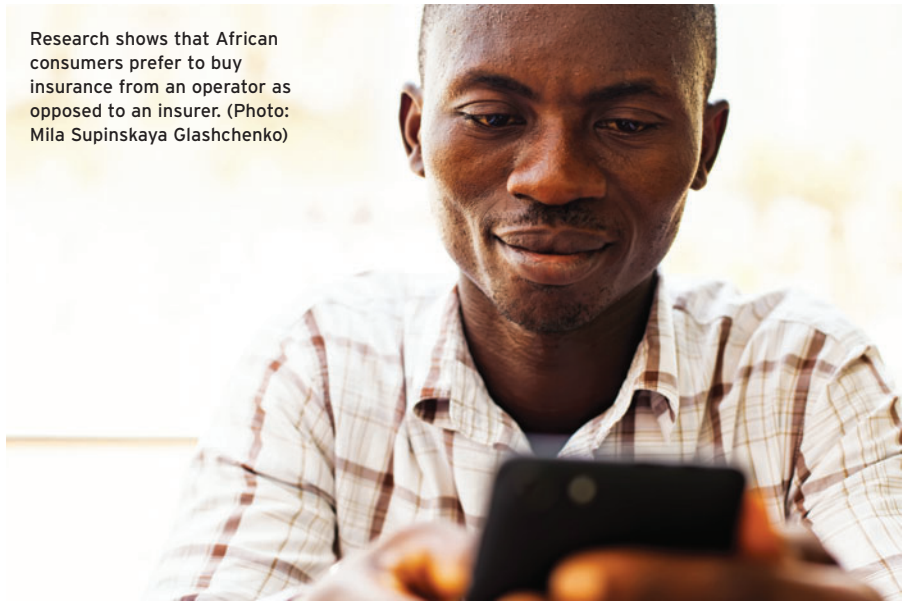
Africa is therefore at the beginning of its own industrial revolution. A revolution that will not be driven by steam and coal; but by mobile and innovation. ✆

Paul Marshall, co-founder Eseye.

Mobile insurance tips for mobile value - added service decision makers

Jeremy Leach, executive director and CEO of Inclusivity Solutions highlights three key points that all mobile value-added service decision makers should take into consideration when dealing with mobile insurance.

AS MOBILE OPERATORS rush to find alternative revenue streams and take new value-added services (VAS) to market, the GSMA cautions operators to treat mobile money as more than a VAS, citing the associated complexities as unique to ensuring successful uptake. This consideration should be extended to other mobile financial services such as mobile insurance. Recent GSMA figures point to a nine per cent year over year growth in mobile insurance services, with 63 per cent of the 120 live services being led by mobile operators. The reality however, is that only eight of these services have issued more than a million policies. So how can mobile operators increase their chances of implrementing a successful insurance offering?



Research shows that African consumers prefer to buy insurance from an operator as opposed to an insurer. (Photo: Mila Supinskaya Glashchenko)

1. Evaluate the capabilities needed

There is a good reason why mobile operators are the platform of choice for mobile insurance. They offer the benefit of three characteristics: Firstly they have access to a vast customer base, secondly they are able to offer a payment mechanism that scales and thirdly they offer a recognised and trusted brand. And whilst the operators offer an excellent vehicle for mobile insurance, many are choosing to complement their own capabilities by creating partnerships with vendors capable of designing, building and operating these initiatives, or more radically, choosing to secure their own insurance licenses.

Whatever the partnership model of choice, operators should be reminded that mobile insurance requires deep vertical expertise and specialist skills which warrants treatment different to that of a traditional VAS offering.

2. Let customer centricity be the guide

The introduction of a new VAS is usually underpinned by the need to address specific measures such as increasing average revenue per user (ARPU) or mobile money savings. This offers a helpful starting point, however decision makers should hold off on determining the most appropriate product vehicle until they have a firm understanding of which solutions offer the customer most value. Investing in research such as Human Centred Design (HCD) can offer insight into what is important to the consumer and consequently the sort of services they are willing to pay for. A report examining the criteria underpinning the microinsurance sprinters, suggests that offering a variety of insurance products can help to increase market penetration. Striking the correct balance between offering loyalty and paid insurance products, or a combination, is optimum and requires careful consideration when designing the products and associated payment mechanisms.

3. Marketing is key

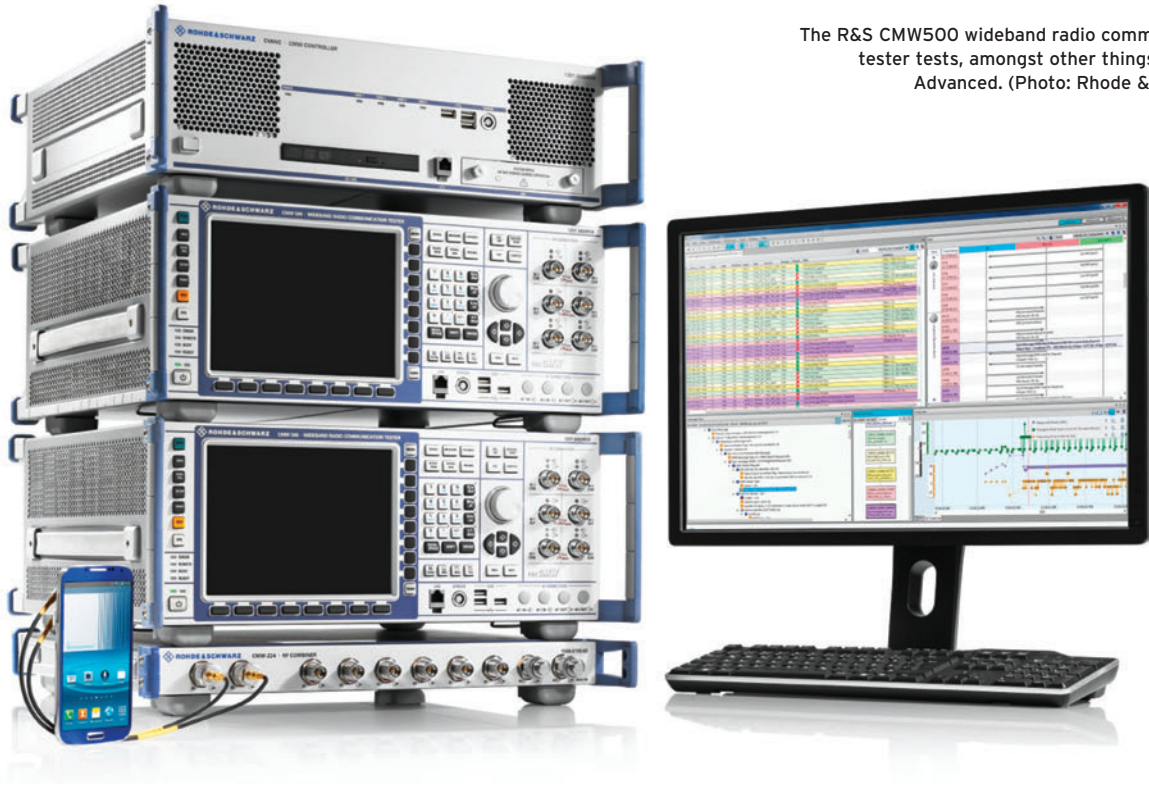
Strength of brand has been crticial to the success of the mobile insurance sprinters. For mobile operators, research shows that African consumers prefer to buy insurance from an operator as opposed to an insurer. However with insurance penetration in emerging markets pegged at between two per cent and 15 per cent, customer education is critical. Operators should not underestimate the amount of marketing that might be required, particularly in below-the-line activity such as agents or VAS ambassadors and call centre support. In conclusion, there is tremendous opportunity for mobile insurance in Africa, characterised by low insurance penetration and relatively high subscriber numbers. To fully realise the potential however, mobile operators need to appreciate the complexities of insurance. They need to realistically assess their own capabilities and undertake the necessary due diligence to determine the optimum partnership model.

Furthermore, when building an insurance offering, operators should not lose sight of meeting the 'V' in VAS. Customer centricity is key to determining value and will be different in each market and operating company. Finally operators have a real opportunity to become the preferred provider of insurance in their markets, however a sustained investment into marketing is critical to driving awareness and education for this poorly understood service.

Jeremy is recognised as a global expert in mobile financial services with a particular expertise in microinsurance and digital insurance. He has been involved in advising, researching and implementing initiatives across the world. An experienced executive, Jeremy has been a director at BFA, a global consultancy focused on innovation in responsible financial services, divisional director and head of microinsurance at the Hollard Insurance Group as well as executive director at FinMark Trust where his leadership on insurance and mobile money had global impact. He is a founding member and adviser to Cenfri, and a member of the IAIS-Micro Insurance Network Joint Working Group on Micro-insurance and has served on the South African Short Term Insurance Advisory Committee at the behest of the minister of finance. Jeremy speaks regularly at international conferences on microinsurance, minsurance, mobile money and innovation in financial services. ✆

More technologies, more testing

Mobile network operators (MNOs) carry out test and measurement (T&M) activities to ensure equipment is operating optimally. As latest mobile technologies and services proliferate, T&M solutions are in demand like never before. Tim Guest reports.



The R&S CMW500 wideband radio communication tester tests, amongst other things, for LTE-Advanced. (Photo: Rhode & Schwarz)

FROM DRIVE TEST solutions and protocol analyzers to passive intermodulation (PIM) testers, the need to deploy comprehensive T&M solutions from leaders in the space like Rohde & Schwarz (R&S) which has just announced its new 5G field measurement demonstrator at 28 GHz for over-the-air characterization of 5G network coverage, has grown as mobile technologies across the world's networks continue to increase. With GSM/GPRS/ EDGE/ LTE/LTE-A/4G/5G all active at various stages of their existence, the need for field engineers to monitor and analyze network elements and conduct measures such as protocol monitoring, call and session tracing, quality of service and radio optimization, is constant.

Learning from the mistakes of others

Just as African MNOs watched 3G roll out in Europe and leapfrogged from the likes of NMT450 and 2G straight to 3G, we are now witnessing an LTE/4G boom as Africa stays at the forefront of mobile. According to the GSM Association, from the start of 2015 to July 2016 the number of 4G-LTE networks in Africa doubled. If the past is anything to go by MNOs here will have learned from the mistakes of 4G in Europe, which experienced such delights as patchy service, fading signals and variable qualities of experience – and interference, which, it seems, simply goes with mobile territory. Interference in wireless networks negatively affects transmission coverage and mobile network capacity, causing major quality of experience issues for operators. These can include dropped calls, decreased battery life and reduced data throughput.

> **"The number of connections, RF interference is becoming more prevalent in wireless networks."**
>
> **Kashif Hussain, CellAdvisor solutions marketing at Viavi**

Talking with Communications Africa (CA), Kashif Hussain, CellAdvisor solutions marketing at Viavi, said that, "From a service provider perspective, interference is much more than a nuisance; if it's not eliminated it can negatively impact CapEx and OpEx and cause subscriber churn." He said that hunting for interference is like 'finding a needle in a haystack' and can take days, or weeks, with equipment used to scan for interference having previously been, 'incredibly heavy and clumsy, often involving engineers using wheelbarrows to move it around in search of an interference source'.

"With network densification," Hussain told Communications Africa, "and the Internet of Things increasing the number of connections, RF interference is becoming more prevalent in wireless networks. As a result, operators are looking towards smarter and more efficient solutions to combat interference. This includes automated, low-cost tools that can significantly reduce the time it takes to locate and eliminate interference. Features such as automated interference navigation guides and voice

prompts are increasingly used to direct engineers to suspected interference locations." He added that advances in technology mean RF engineers can now locate interference sources using light-weight, Wi-Fi-enabled test equipment on the go, even without leaving the driver's seat. Viavi recently worked with Alan Dick Communications in Nairobi, using a fully automated interference location solution, with directional and navigation functions, to locate and solve an interference issue that was only present in the area for approximately one 0.5-second burst every 10-15 minutes making it difficult to locate. But by utilising a fully automated interference location solution with directions and navigation, the engineers were able to take RF measurements and recommend a solution to the signal issues for the operator.

Advances in technology make it vital for operators to overcome performance issues and ensure the highest quality of experience for customers. As networks evolve and connections multiply, interference issues will inevitably follow. Therefore, it is more important than ever to harness the right tools to locate errors and fix them as fast as possible.

According to the GSM Association, from the start of 2015 to July 2016 the number of 4G-LTE networks in Africa doubled.

The Threat of PIM

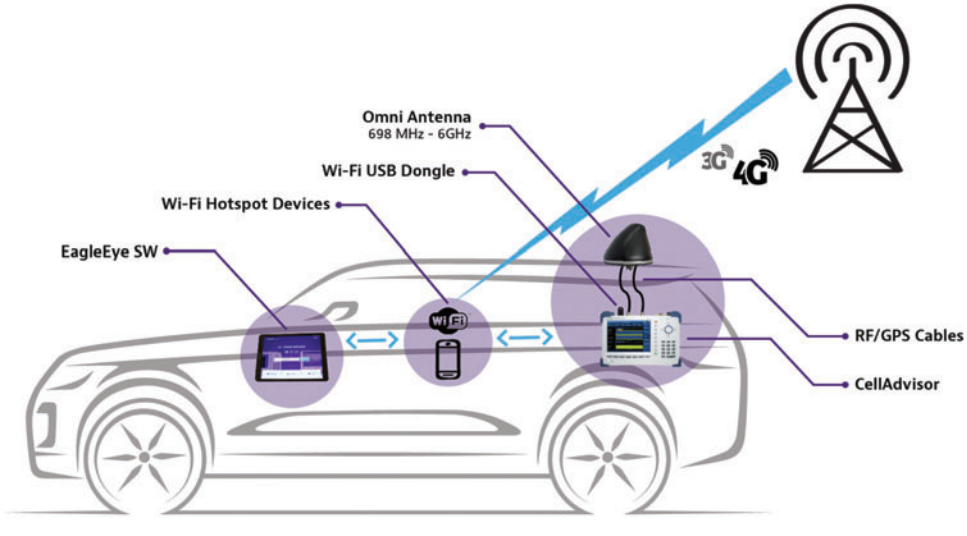
When it comes to the increasing practice of sharing RF infrastructure at the cell site, one problem that can raise its head across Africa is that of PIM. According to Peter Jackson, chief marketing officer, CCI, talking with CA, an effective PIM-management strategy will ensure sharing can take place without losses or compromise on performance. "Mobile operators have always treated PIM seriously, but the impact can generally be mitigated against by good RF planning and installation techniques." He said poor PIM may be the cause of higher dropped calls, reduced coverage of a cell and increased Bit Error Rate and while other aspects may be at play, PIM is one of many things to check using portable test units to simulate a base station. He said testing PIM has generally been done in production or a lab environment, but advances in recent years have enabled the lab test equipment to be packaged as portable test units and taken on site.

Jackson said while PIM has always been around it previously had less impact than now, but, "With more spread-spectrum technologies like LTE/4G/5G entering the picture, the PIM emphasis needs to move towards the hardware aspect of the RF path, such as network components and installation quality. With site sharing, the proximity of many different spectrums and more channels in band can increase the statistical likelihood of PIM, although sharing can actually be seen as an opportunity to improve PIM performance on legacy equipment by upgrading the quality of components and installation."


Antenna Advisor from Viavi Solutions (Photo: Viavi)

We are now witnessing an LTE/4G boom as Africa stays at the forefront of mobile.

He added that when taking PIM measurements at a cell site, using the likes of CCI's PiMPro analyzers, MNOs can address PIM in 2G/3G/CDMA/LTE/LTE-Advanced/4G/5G networks by providing precise measurements that verify the integrity of any system or component under high-power conditions. "PIM testing is intended to be performed within a site's transmission line path from the radio to the antenna. When antenna manufacturers test antennas for PIM performance, measurements are taken in an anechoic chamber without external interference. In the field, however, external signals can often be construed as PIM signals, because they occasionally fall within the up-link receive band and can come from sources such as adjacent cell sites, old TV transmitters, or other nearby metallic structures." He added that PIM testing is increasingly being done for in-building installations, such as DAS (Distributed Antenna Systems), where there is demand for high data rates and where CCI's PIM Analyser is ideally suited to provide additional test transmitter capabilities and Rx interference functionality. ✆



A diagram of Viavi Solutions Interference Advisor. (Photo: Viavi)

Cabsat 2017 to highlight developments in satellite industry

After a successful show in 2016, Cabsat has returned to Dubai once again for its 23rd edition, to serve as a platform for exhibitors looking to showcase new innovations in broadcast, production, content delivery, digital media and satellite sectors and at the same time connecting content creators with distributors and buyers in Africa, the Middle East and South Asia.

Cabsat 2016 welcomed more than 15,000 visitors. (Photo: Cabsat)

THE EVENT, WHICH will take place between 21-23 March at the Dubai World Trade Centre, will welcome cable operators, broadcasters, CTOs, e-commerce businesses, IT systems suppliers, decision makers from TV stations and channels, professionals in radio, content creators and distributors, satellite operators, independent production and augmented reality systems suppliers.

> "Crystal Vision is currently developing gateway products for converting between SDI and IP signals."

Cabsat has become a key meeting place for the rapidly growing broadcast, satellite communication, content delivery and electronic media industries. Global analysts have predicted that entertainment and media spend across Africa and the Middle East will reach US$66bn by 2018. The highly anticipated show proved to be a success in 2016 as it opened its doors to more than 15,000 visitors and over 950 exhibitors who represented more than 120 countries globally. One of the companies that attended last year, **Gazprom,** found that the show enabled it to strengthen its position in Africa and the Middle East, while also increasing its volume of global sales. Contracts on the Yamal satellites capacity provision for occasional use services were also signed at the show. The firm will be returning for the 23rd edition of the show alongside a host of exhibitors to present its latest products and services.

Crystal Vision will be showcasing its new Vision 3 frame system that features core cards of up and down converters, synchronisers, fibre-optic transmitters and receivers, audio embedders/de-embedders and distribution amplifiers for analogue and digital video and audio, the firm has announced. Crystal Vision's Indigo range offers the choice of three different frame sizes and 75 cards to include its Safire 3 chroma keyer, which has already proved to very popular with its Middle Eastern customers, according to the company. The Vision 3 presents futureproof technology, for example, having the ability to cope with any signals whether it is SDI video, 4K or Video over IP. Crystal Vision is currently developing gateway products for converting between SDI and IP signals. Additionally, it provides other features such as dual syncs, from the frame to every card for easier wiring and operation and two 460w power supplies and is very easy to control from the front panel. The Vision 3 has many outputs with up to seven connectors on each Vision rear module and quick connection between cards and frame CPU, which is good for backing up card settings and presets large internal storage. It also makes good use of rack space with the ability to store up to 20 cards vertically.

Also attending this year's show is **GatesAir,** one of the leading companies in wireless, over-the-air content delivery solutions for radio and TV broadcasters. The firm has announced the buildout and launch of a turnkey DVB-T2 transmission system serving the Federal Capital Territory (FCT), Abuja, Nigeria's capital city.

The DVB-T2 system supports the switch-on of a new over-the-air DTV service now delivering 30 channels of high-quality news, information and entertainment to Abuja residents.

GatesAir and Pinnacle Communications designed, delivered, integrated and commissioned the complete solution on behalf of Nigeria's National Broadcasting Commission (NBC) over a three-month period, which includes main and backup GatesAir high-efficiency Maxiva™ ULXT liquid-cooled transmitters for content delivery. GatesAir also supplied the DVB-T2 headend, which optimizes UHF spectrum for multi-channel services; along with all electrical material and RF systems required for the greenfield buildout.

The FCT Abuja system represents the second phase of a digital switch-on, which is expected to eventually reach more than 50mn homes and 170mn residents, the company revealed.

"The Abuja project began as a greenfield site in early September, and we worked closely with GatesAir and the National Broadcasting Commission through its inauguration on 22

December," said Dipo Onifade, executive director, Pinnacle Communications. "This tight schedule was quite a challenge, and its success proves how well the two companies work together to deliver complete digital broadcasting solutions with exceptional quality."

DTC Domo Broadcast (previously Cobham Broadcast) will showcase the SOLO7 OBTX camera-back transmitter and PRORDX Receiver/Dual Decoder at CABSAT 2017.

SOLO7 OBTX is a feature-rich camera-back transmitter from Domo that features a H.264 video encoding, up to 1080p60 and 4:2:2 compression; integrated camera control and swappable RF modules. The SOLO7 OBTX's superior latency ranges from 80ms to 15ms. Its ultra-low power consumption also makes it ideal for extended field performance.

Domo's PRORXD is the industry leading COFDM receiver/dual decoder. Designed specifically for broadcast applications, it offers benefits that include DVB-T and UMVL demodulation; 2, 4, 6 or 8 RF inputs with 9/12DC switchable down converter power; plus fully compliant MPEG2 and H.264 SD/HD decoding. The ability to link these units via ASI packet switching, enables extremely robust MCR diversity plus scalability to chain receivers together offering seamless wide area coverage.

"These key products represent the very latest in what's possible in RF. We're very excited about showcasing the vast range of features in both products to CABSAT delegates," said Domo Broadcast sales director JP Delport.

Satellite operator **ABS** will also be at the show exhibiting a wide range of solutions including broadcasting, data and telecommunication services tailored for broadcasters, service providers, enterprises and government organizations. The company,

> **"ABS-2A is the latest high-capacity satellite providing expansion capacity and continuity of satellite services at our prime gateway over the Indian Ocean region. "**
>
> **Tom Choi, CEO of ABS**

which is a leading Middle East and North Africa (MENA) provider of all broadcasting and production services, operates a fleet of satellites; ABS-2, ABS-2A, ABS-3A, ABS-4/Mobisat-1, ABS-6 and ABS-7. The satellite fleet covers 93 per cent of the world's population across the Americas, Africa, Asia Pacific, Europe, the Middle East, CIS and Russia. Tom Choi, CEO of ABS recently announced the successful launch of three satellites. "We have completed our 3 satellite build investment in launching three satellites in three consecutive years (ABS-2 in 2014, ABS-3A in 2015 and ABS-2A in 2016). ABS-2A is the latest high-capacity satellite providing expansion capacity and continuity of satellite services at our prime gateway over the Indian Ocean region. It is located with ABS-2 at our premium neighborhood at 75°E, optimized for video services for growing CATV and DTH businesses," said .

Intelsat will also be showcasing its products and services at this year's show. Its new high-throughput satellite, Intelsat 33e is attracting new customers in Africa. For example, Africa Mobile Networks (AMN), which delivers commercial service to previously unconnected rural areas in sub-Saharan Africa, will use Intelsat EpicNG to help mobile network operators expand in these areas in a cost-effective manner and deliver social, economic, educational and other benefits to the population. At last year's show, Intelsat presented The Globalized Network, combining its satellite expertise with both its terrestrial infrastructure and managed services it has been able to deliver high-quality, cost-effective video and broadband services across the world.

A fast growing fixed satellite solution service provider in Africa **iSAT Africa** will be at this year's Cabsat exhibition, with its offering of satellite solutions for transmission of video, data or voice services. With customers from the leading media and network companies, multinationals, ISPs, Telcos and governmental agencies, the firm offers data, voice and video type requirements for customers using satellite and terrestrial infrastructure. According to iSAT, the firm's goal is to transform the way Africa gets and stays connected with rest of the world and this can be achieved through carrier grade connectivity for voice, data and video applications in a bid to increase business opportunities in diverse and challenging environments.

Pixel Power, the innovative supplier of broadcast graphics, playout and automation solutions, is concentrating on playout and graphics automation in its demonstrations at CABSAT 2017 the firm has announced. The presentations will feature advanced on-premise, virtualized and cloud solutions which have been proven with real broadcasters worldwide.

"Media businesses today, faced with the many challenges of delivering rich content to multiple platforms, need to implement new approaches to delivering content," said James Gilbert, chief executive of Pixel Power.

"We at Pixel Power are not talking about IP and software architectures as buzzwords, but are focusing on what our customers really need: technology that gives them the productivity and flexibility they need, achieved through the virtualisation of solutions and ultimately highly agile cloud implementations."

Working together with Amazon Web Services, Pixel Power has already delivered broadcast playout solutions with sophisticated 3D graphics, DVE moves, live feeds and manual control, all in the cloud. The company noted that this has been possible through the roll out of two of its key technologies, StreamMaster Media Processing and Gallium Workflow Orchestration, using virtualizable software. System engineers have the required flexibility to build exactly what is needed, whether in individual appliances, virtualized in the data center and freely interworking with other technology, or in the cloud. ✆

Gazprom will be showcasing its latest products and services at this year's show. (Photo: Gazprom)

Surfez sur la Vibe

En moins de deux ans, Vibe Radio est devenue l'une des stations de radio les plus populaires d'Abidjan. Pour en savoir plus, Stephen Williams s'est entretenu avec la directrice générale de Vibe Radio, Mme Korédé Odjo-Bella.

Vibe Radio est devenu l'une des stations de radio les plus populaires à Abidjan. (Photo: Roman Yanushevsky)

EN MOINS DE deux ans, Vibe Radio est devenue l'une des stations de radio les plus populaires d'Abidjan. Pour en savoir plus, Stephen Williams s'est entretenu avec la directrice générale de Vibe Radio, Mme Korédé Odjo-Bella.

Les locaux de Vibe, à Abidjan, dégagent une atmosphère particulière. On y sent la fierté et l'enthousiasme des employés travaillant pour ce qui est probablement la station de radio la plus populaire de Côte d'Ivoire.

Une attitude que l'on retrouve jusqu'au sommet, comme en témoigne la directrice générale, Korédé Odjo-Bella. Cette ancienne cadre de haut vol du secteur des finances est aux commandes de Vibe depuis ses prémices, et a supervisé le lancement de la station sur les ondes en septembre 2015.

Comme le rappelle Mme Odjo-Bella, la radio reste le premier média de masse en Afrique, celui dont la couverture est la plus rentable, et dont l'audimat rivalise avec la télévision, les journaux, les magazines et les autres TIC. Et telle est la raison d'être de Vibe.

« En Côté d'Ivoire, nous explique Mme Odjo-Bella, nous avons trois types de radio: la radio publique nationale, la radio commerciale et la radio communautaire. Vibe est une station de radio commerciale, dont les recettes dépendent de la publicité. Plus de 80% de nos programmes sont musicaux ».

Les activités de Vibe, dont sa production, sont portées par la technologie. Une programme informatique effectue une présélection musicale à partir d'un éventail de styles contemporains. Il remplace ainsi l'ancien modèle, celui du DJ qui choisit la musique qu'il diffuse.

Les présentateurs reçoivent la sélection quelques jours avant l'émission en direct, afin de créer de brèves introductions de 20 secondes et d'insérer des commentaires.

Korédé Odjo-Bella souligne que « 60% de nos morceaux sont internationaux, et 40 % africains, dont une grande partie, environ 20 %, soit 8 % du total, sont ivoiriens. Les autres stations de radio diffusent plus de musique urbaine africaine que nous, mais Vibe vous permettra d'écouter un peu de tout, et c'est ça qui plaît à nos communautés d'Abidjan ».

Les objectifs d'audimat ont principalement été atteints grâce au recrutement d'animateurs de choix, telle Konnie Touré (sans doute la DJ la plus célèbre et populaire de Côte d'Ivoire) qui occupe le poste de directrice des programmes, et au lancement d'une vaste campagne d'affichage publicitaire dans la ville.

Bien que Vibe Radio soit une filiale du géant français des médias Lagardère, l'attrait de la station dépend entièrement de la diffusion de contenus locaux. Korédé Odjo-Bella précise que de nombreux programmes encouragent les auditeurs à prendre des initiatives. Ceux-ci peuvent participer à des concours ou simplement donner leur point de vue grâce aux réseaux sociaux (Facebook, Twitter, Snapchat...), par courriel ou par téléphone.

Vibe Radio est une station fondamentalement numérique (63 % du public l'écoute en ligne), et 30 % des auditeurs possèdent un smartphone. Huit auditeurs sur dix ont plus de 20 ans, et 70 % des 114,000 auditeurs écoutant la station au quotidien sont considérés comme appartenant aux classes moyennes.

Sachant que Vibe dessert un rayon de 100 km depuis le centre d'Abidjan, ces chiffres d'audimat constituent un marché idéal pour bien des publicitaires. Sans compter qu'Abidjan a de beaux atouts en tant que zone de desserte. Avant la guerre civile, elle était souvent surnommée la Manhattan de l'Afrique de l'Ouest. Le retour de la paix, en 2011, lui a permis de retrouver son vieux statut de cœur commercial du pays, et de redevenir l'une des villes les plus prospères d'Afrique de l'Ouest.

Toutefois, Mme Odjo-Bella affirme que la station ne réserve à la publicité que deux créneaux de trois minutes par heure, à chaque heure passée de 20 et 40mn, ce qui permet à la production de la station de radio de rester pertinente et « audible ».

Quant à l'avenir, Korédé Odjo-Bella souhaite que Vibe Radio couvre l'ensemble du pays d'ici fin 2018. Bien que le coût des données soit prohibitif, Internet a permis à la station de rayonner bien au-delà de ses frontières nationales. Mme Odjo-Bella estime donc que Vibe Radio pourra étendre son rayon de transmission à toute l'Afrique francophone de l'Ouest et du centre. ✆

Smart solutions from Bosch

AT THIS CES 2017 held in Las Vegas earlier this year Bosch showcased its smart solutions for areas in smart home, smart city, connected mobility, Industry 4.0 and sensor technology.

According to Bosch, connected technologies provide support in all areas of life including making the home intelligent and making health care technology more efficient. This year Bosch showcased an expanded portfolio of "Simply.Connected" networked solutions.

With the XDK sensor platform, Bosch offers a comprehensive hardware and software platform with various types of sensors as well as a Bluetooth and WiFi connection. The sensor platform can be used by companies to develop the IoT solutions that best suit their needs. The XDK sensor platform is easily installed and can be tailored to individual applications.

Flexenclosure launches the world's first hybrid power system for telecom sites

ESITE X10 IS the world's first hybrid power system purpose-built for outdoor telecom sites and to outdoor telecom standards. The system features a patented, sealed tamper-proof unit with passive convection cooling, without the use of filters, moving parts and requires no maintenance.

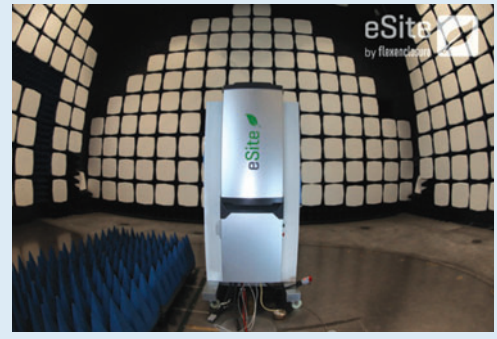
One of the leading companies in the hybrid power system market, Flexenclosure had launched thousand eSite systems in Africa and Asia.

Three years in development, eSite x10 has been purpose-built from the ground up to withstand the operational challenges that have been the downfall of nigh on all of the hybrid power implementations around the world to date.

"eSite x10 is like no other hybrid power system available today and its launch is a ground-breaking moment in the industry's history", said David King, chief executive officer, Flexenclosure. "Until now, hybrid power systems for off-grid or bad-grid telecom sites have been built using indoor components and deployed in outdoor locations where they are exposed to the most challenging environmental extremes imaginable."

"These systems weren't fit for purpose and they were highly unreliable. eSite x10 has been developed to overcome these operational issues and is, quite simply, the future of hybrid power."

Hybrid power systems often suffers from neglected maintenance so eSite x10 has been rolled out to be maintenance-free with no filters or moving parts. It has no single point of failure and uses patented protective soft



eSite x10 Hybrid Power System. (Photo: Flexenclosure)

power switching between the grid and connected gensets to replace mechanical switching and thus protect the unit from potentially affecting input power while maximising energy harvesting.

eSite x10 also uses passive convection cooling, meaning no energy is wasted on active cooling systems such as air conditioning.

The unit is smaller in size, reduced by 75 per cent when compared with existing hybrid power systems and it can be hand carried to site, which both simplifies transport logistics and deployment.

Flexenclosure noted eSite x10 has been launched for the lowest possible total cost of ownership (TCO), with a lifespan of more than ten years in even the most challenging outdoor telecom site environments.

Bittium new high-security level version of the Bittium Tough Mobile smartphone

BITTIUM EXHIBITED ITS mobile security products and solutions targeted for authorities at the Critical Communications Europe exhibition in Copenhagen, Denmark which took place 8-9 February 2017. At the event, Bittium launched a new Confidential classification level version of the Bittium Tough Mobile with its back-end system.

Bittium Tough Mobile is a secure and durable Android-based LTE smartphone combining the latest information security and commercial device technologies.

Bittium Tough mobile. (Photo: Bittium)

The dual-boot functionality on the Bittium Tough Mobile for the Confidential classification level makes it possible to operate the device with two different operating systems: Public and Confidential. The operating system categorised as Public is meant for personal communications with access to social media applications, for example, while the operating system classified as Confidential is isolated and hardened for secure authority and information security use. It enables the user to have only one device for calls and messaging for both personal and for demanding information security needs, so takes away the need to carry two devices.

Also showcased was Bittium Secure Suite - a device management and encryption software product that supported the Bittium Tough Mobile smartphone with a scalable set of new software services for remote management, remote attestation and securing the network connections of the device. Both products offer a reliable system for processing and transferring sensitive and classified material and securing critical communication.

TP-Link introduces new outdoor Wi-Fi access point

TP-LINK, A LEADING global provider of consumer and business networking products, has introduced a new outdoor Wi-Fi access point, the Auranet EAP110-Outdoor. J

Following its introduction in 2015, TP-Link Auranet EAP Series Access Points and Controller Software has offered user-friendly, manageable and flexible solutions to professional-grade Wi-Fi networks.

The EAP110-Outdoor supports every modern network scenario, with maximised performance to deliver fast, stable Wi-Fi to every device. Wi-Fi speeds of up to 300Mbps on 2.4GHz meet your daily needs, including surfing, emailing and streaming. To optimise the network and every device on it, 2×2 MIMO supports more data transmission and reception for a stable connection to everyone, family and friends alike. Featuring two high-gain omni-directional antennas, the network reaches distances of up to 200 metres, and provides robust 360-degree coverage. It also offers flexibility and passive PoE for simple setup

Some key features include: 2×2 MIMO supports more data transmission and reception for greater wireless speed and stability, simple mounting design makes easy to outdoor install on any wall or pole and passive PoE (24V 0.6A) of up to 60 metres allows easy and affordable installation.The EAP110-Outdoor has been designed for easy deployment, with an easy-mounting chassis, which means it can be fixed to any wall or pole, allowing installation virtually anywhere. Using passive Power over Ethernet, the user is able to choose where it is installed rather than factoring in the proximity to existing power outlets or the cost of installing new ones. PoE uses Ethernet cables to transmit data and power up to 60 meters.

The EAP110-Outdoor has been designed to withstand even the most extreme weather conditions. Featuring ASA casing, IP65-rated dust and weatherproof enclosure and specialised waterproof antennas, it protects against the elements throughout the year.

Rohde & Schwarz présente son portefeuille de produits à CABSAT

Platforme de R&S Venice 2U

The R&S Venice 4K. (Photo: Rohde & Schwarz)

ROHDE & SCHWARZ présente son portefeuille de produits à Cabsat.

Rohde & Schwarz a annoncé l'expansion de sa plateforme d'acquisition et de diffusion R&S VENICE déjà très populaire, pour inclure une nouvelle application: R&S Venice Control.

La société est déjà présente dans plus de 70 pays, y compris le Bénin, le Burkina Faso, le Burundi, le Cameroun, le Congo, la Côte d'Ivoire, l'Égypte, le Maroc et Madagascar.

Le logiciel d'acquisition R&S VENICE Control, conçu pour contrôler des enregistrements multicaméra complexes, permet d'enregistrer jusqu'à 16 canaux indépendants dans les formats de production et de diffusion conventionnels. À l'heure actuelle, c'est le nombre de canaux par système le plus élevé du marché.

Rohde & Schwarz a développé R&S Venice Control en étroite collaboration avec les plus grands opérateurs de studio pour répondre aux critères exigeants de l'enregistrement multicaméra. L'application logicielle facilite l'enregistrement de contenu live et non-live pour les diffuseurs et opérateurs de studios TV, et les véhicules de reportage en extérieur. R&S Venice Control fournit une présentation claire des canaux enregistrés, que les utilisateurs peuvent organiser selon leurs souhaits. Un total de 16 canaux peuvent être simultanément contrôlés, quelle que soit la résolution des canaux individuels, permettant l'enregistrement en SD, HD et UHD en même temps.

Tous les paramètres nécessaires à l'enregistrement peuvent être sauvegardés puis appliqués à des canaux individuels ou des groupes de canaux. La configuration manuelle chronophage de chaque canal appartient au passé. Même la préparation laborieuse d'événements récurrents, tels que les programmes enregistrés sur une base hebdomadaire, se fait plus rapidement. L'attribution automatique de noms aux fichiers et dossiers permet aussi d'économiser du temps. L'application crée automatiquement des noms de fichiers et des structures de dossiers basés sur des caractères génériques. Il suffit à l'utilisateur de créer des paramètres tels que l'heure et la date, le nom du serveur et le numéro du canal, puis les champs sont automatiquement peuplés avec les valeurs requises. Selon Rhode & Schwarz, R&S Venice a été conçu pour répondre aux contraintes et exigences de la production live, de la création de contenu et de la distribution.

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