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Communications Africa Afrique

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Mobile World Congress

African innovations at global communications showcase

LTE at AfricaCom

Sustainable business models, enhanced spectrum management and backhaul optimisation

Network

Customer-centric innovations for modern service providers

Marché

La révolution du haut débit au service de l'Afrique

Satellite broadcast and broadband services in the digital age

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A note from the Editor

THIS ISSUE OFFERS an appraisal of the solutions and services on show at AfricaCom, and also previews the developments to come at the forthcoming Mobile World Congress. The core theme of this issue, aisde from these events, is the development of network functionality through improved testing, design, and management.
Further to this is an appraisal of the contribution of satellite technology and services to broadband and broadcast operations across Africa
Teh issue includes, for the broadcast sector, a round-up of the latest affordable equipment promoted at the most recent SATIS event.

Cover Image: Liquid Telecom
Inset: AMOS-Spacecom
Contents page: Orange

Une note du rédacteur

CE NUMÉRO ATTEST un rapport de l'événement CES, sur le sujet particulier de transport.
Aussi, il ya un article spécial , écrit parMichel Combes, le directeur général d'Alcatel-Lucent, sur le sujet de la connectivité de l'Afrique de l'avenir , et les développements futurs du marché.

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ARTICLES

IMAGE: POSS COVERS/Orange

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Vodacom upgrades charging platform with Redknee

SOUTH AFRICAN OPERATOR **Vodacom** has signed a multi-million dollar order to upgrade to the latest version of **Redknee**'s Unified platform; with the flexible billing, charging and rating offered by the platform, Vodacom is able to launch advanced products, promotions and new service offerings to its subscribers, target new market segments, and support its data/LTE growth strategy.

Vodafone and BBOXX power platforms in East Africa

THERE ARE APPROXIMATELY 5,000 Internet connected SMART Solar products powered by **Vodafone**'s M2M Platform, with over 300 installed in East African households; by the start of 2015, there will be over 5,000 units deployed in East Africa alone, with 20,000-25,000 people positively affected by the introduction of the SMART Solar product, which was designed and manufactured for Vodafone by **BBOXX**.

BBOXX installers working on a roof at Lake Kivu, DRC

Infobip enables USSD and two-way SMS in Nigeria

CLOUD-BASED MOBILE MESSAGING specialist **Infobip** has established unstructured supplementary service data (USSD) and 2-way short message service (SMS) coverage in Nigeria with **Airtel**, **Etisalat**, **Glo Mobile** and **MTN** - ensuring coverage of 98.3 per cent of the country's mobile market; USSD and two-way SMS are cost-efficient and user friendly methods of establishing a dialogue with mobile users regardless of handset type or mobile data coverage, and have a range of uses in mobile marketing, customer service or polling and market research.

Etisalat customers participate in global e-commerce

Since the launch of **Etisalat**'s Companion Card service in 2014, 671,000 single-use virtual cards have been issued in Egypt, Côte d'Ivoire and Gabon; Companion Card's portfolio of services has been introduced across the African and Asian operations of Etisalat Group, accessible to 17mn un-banked, under-banked and fully banked users, including single-use virtual debit cards linked to the customer's 'Flous' account to conduct online shopping on any website that accepts **MasterCard**, a physical debit card linked to the customer's Flous account to conduct transactions at physical merchant locations accepting **UnionPay** cards, and direct acceptance of Flous mWallet accounts at participating MasterCard physical merchants.

More Kenyan farmers use mAgri-Info

AROUND 4,000 FARMERS in Kenya now use **TTC**'s interactive messaging platform mAgri-Info to gain access to technical production information and good agronomic practices (such as varieties, field operations, pest and disease control and post-harvest handling) to help increase sweet potato yields; the program also assists in coordinating production and marketing activities such as when to plant, what acreage to plant, when to harvest and what volume to harvest.

Ooredoo Algeria and NEC serve taxis and ambulances

IN SUPPORT OF the Algerian Government's efforts to promote economic development by increasing use of information and communications technologies (ICTs), **Ooradoo** and **NEC** are working together to make ICT services easy to access, buy and use in the country.

The partners created a cloud marketplace marketed by Ooredoo and the Algerian business development agency **ANDPME**, with specific requirements for field communications (for the nation's emergency services and taxi companies) met by NEC smart push-to-talk (SPTT) solution, a service emulating walkie-talkie radio channels using 3G, Wi-Fi and cloud-based software, enabling dispatchers to communicate with fleet vehicles through group chat or with individual drivers directly from personal computers.

SPTT customers can subscribe to other relevant software like accounting or payroll applications via the cloud marketplace, based on NEC's Cloud Brokerage Suite (NCBS) which comes with an ecosystem of over 200 independent software vendors specialising in key vertical sectors. With functionalities like automated provisioning, single sign-on, secure customer data storage, billing, online instant chat customer services and marketing, the NCBS helps Ooredoo deliver cloud services cost-effectively to small businesses.

This initiative has the support of the Algerian government, as part of its efforts to encourage growth in the small and medium-sized enterprise (SME) sector to diversify the economy beyond the oil & gas sector.

Tecnotree's telecoms growth opportunities

FINNISH TELECOMMUNICATIONS TECHNOLOGY solutions provider **Tecnotree** has released its top predictions for the telecoms industry in 2015. The trends from CTO Timo Ahomäki indicate where Tecnotree believes activity and innovation will be focused over the next 12 months. With growing customer demands and an increasing need to remain competitive and profitable, major operators and communications service providers (CSPs) will channel growth in the development of new technologies, partnerships and entry into new sectors.

Collaborations between large players

This year will be about large players forming big partnerships - not just between CSPs and operators, but also with utilities and vehicle companies. While the result of these collaborations may not be immediately felt in the next 12 months, 2015's collaborations will lay the ground for some notable market shifts in the future. Some CSPs and technology companies may even enter the mobile market by themselves as a reseller or mobile virtual network operator (MVNO), without needing to partner with an operator.

Vehicle telematics

This sector is set for growth, interest in incorporating vehicle telematics is likely to continue to grow with major car manufacturers. Telecoms operators will also be keen to provide their network infrastructures as they seek to grow revenue opportunities. Even without the support of telecoms operators, expect big systems integrators such as TATA, IBM and Oracle to make moves in the industry.

Software-defined networking/Network functions virtualisation (SDN/NFV)

This will be the big buzz topic for MWC 2015 with telecom service providers believing this to be the future for delivering new types of customer network services that simultaneously allow operators to successfully monetise their infrastructures. Currently in its infancy, the new technologies are expected to grow significantly over the next 12 months and solidify its position in the mainstream market.

Global Telecoms awards

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L'accès au génie civil d'IAM est désormais possible

ITISSALAT AL-MAGHRIB (IAM) a publié sa 1ère offre de gros d'accès à son génie civil, dans les conditions et les modalités fixées par L'agence Nationale de Réglementation des Télécommunications (ANRT) au Royaume du Maroc; les opérateurs intéressés peuvent désormais adresser leurs commandes à IAM en vue d'accéder aux installations physiques de son génie civil.

Orange investit dans Afrimarket

L'OPÉRATEUR ORANGE A participé à une levée de fonds dans Afrimarket, leader du transfert d'argent en cash-to-goods; au-delà de cet investissement, Orange participera au développement d'Afrimarket, en lui apportant sa connaissance du marché et en lui faisant bénéficier des nombreux atouts d'un opérateur mobile international avec une forte notoriété.

Opérateur marocain acquiert des actifs d'Etisalat

MAROC TELECOM A finalisé l'acquisition des filiales d'Etisalat présentes au Bénin, en Côte d'Ivoire, au Gabon, au Niger, en République Centre-africaine et au Togo; cette acquisition concerne également Prestige Telecom qui fournit des prestations IT pour le compte des filiales d'Etisalat dans ces pays.

Un nouveau laboratoire d'innovation en Afrique de l'Est

MASTERCARD LABS FOR Financial Inclusion, une initiative lancée en Afrique de l'Est et financée par la Bill & Melinda Gates Foundation, développe des services financiers pour permettre aux bénéficiaires de se construire un meilleur avenir; à l'échelle internationale, les innovations en matière de paiement numérique permettent à plus de personnes de tirer parti de services financiers établis - et ces outils, simples d'utilisation et efficaces, ont le potentiel de réduire les coûts de manière drastique.

MasterCard et la Bill & Melinda Gates Foundation développe des services financiers (Photo: Ryan Erenhouse)

La 9ème édition de Media Star

OOREDOO A LANCÉ la 9ème édition de son concours « Media Star », le 1er concours journalistique algérien dédié aux TIC, devenu au fil des années un évènement fort attendu par les professionnels des médias algériens; considéré comme la première compétition journalistique devenue incontournable sur la scène médiatique algérienne, le concours Media Star connaît un succès de plus en plus grand qui se traduit par le nombre sans cesse croissant de participants.

La BAD et MasterCard étendent l'Inclusion Financière en Afrique

LA BANQUE AFRICAINE de développement (BAD) et MasterCard ont annoncé une importante collaboration en vue d'étendre l'inclusion financière à l'ensemble du continent africain; cette collaboration vise à développer des solutions permettant de dynamiser la croissance inclusive en Afrique en élargissant l'accès aux services financiers numériques et l'utilisation de ces services.

Arelis présente son nouveau système autonome à énergie solaire

A L'OCCASION DU World Mobile Congress 2015, Arelis lance son 1er démonstrateur d'émetteur TV autonome solaire en bande UHF. Il s'agit d'un pilote fonctionnant aux énergies renouvelables destiné aux stations d'émission sur des sites isolés de faible puissance, intégrant la capacité d'émission; l'ensemble des équipements intégrés dans la station a bénéficié de recherches avancées pour optimiser l'empreinte carbone en réduisant leur consommation électrique ainsi que la dissipation thermique globale afin d'être conforme aux gammes de température outdoor étendues.

Le premier réseau dorsal 400G d'Alcatel-Lucent en Afrique

OOREDOO ALGÉRIE ET Alcatel-Lucent vont construire une réseau de transport optique à haute capacité afin de doter les trois principales villes algériennes que sont Alger, Constantine et Oran, ainsi que d'autres villes de taille plus modeste d'un accès mobile très haut débit.

Le déploiement de la solution AON (Agile Optical Network) - qui sera la première « dorsale » 400G (400 gigabits par seconde) d'Alcatel-Lucent en Afrique - sera achevé avant fin 2014. Il permettra d'augmenter de façon spectaculaire la vitesse et la capacité par rapport aux précédents réseaux mobiles algériens.

Le réseau reposera sur la technologie de transport optique DWDM (Dense Wave Division Multiplexing, multiplexage par répartition en longueur d'onde dense) d'Alcatel-Lucent et utilisera le commutateur de services photonique 1830 PSS (Photonic Service Switch), qui est aujourd'hui la plateforme principale de l'activité optique terrestre de l'entreprise.

Orange et Ecobank lancent un service de transfert d'argent

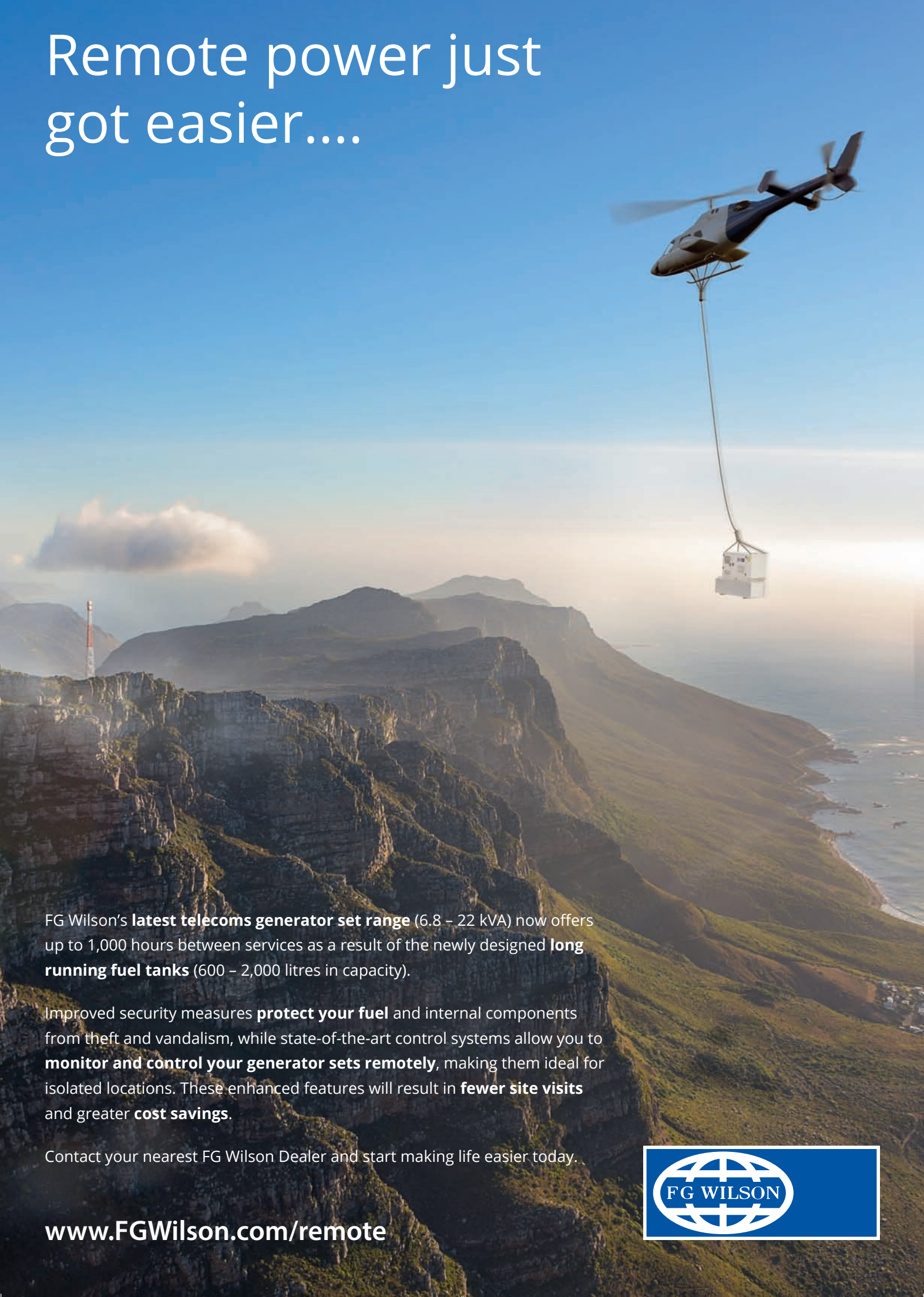
LE GROUPE BANCAIRE panafricain Ecobank et l'opérateur Orange ont lancé un service permettant aux clients d'Orange Money détenteurs de comptes bancaires Ecobank de transférer de l'argent entre leurs comptes. Le service est déjà opérationnel au Mali et sera déployé dans plusieurs autres pays africains, dont le Cameroun, la Côte d'Ivoire, la Guinée Conakry, le Niger, le Sénégal et la République démocratique du Congo, au cours du premier semestre 2015.

Ce partenariat vise à faciliter les échanges entre les clients communs à Orange et Ecobank, en leur offrant la possibilité d'alimenter leur portefeuille électronique Orange Money avec leur compte bancaire, et inversement. Les clients peuvent effectuer ces échanges depuis leur téléphone mobile en toute sécurité à tout moment, sans se déplacer et sans transporter d'argent liquide.

Les deux entreprises ont lancé le service suite à un accord de principe. Ce partenariat représente la volonté commune de développer les services financiers mobiles et permettre l'accès de tous aux services bancaires en Afrique.

En Afrique Subsaharienne, où moins de 24% de la population dispose d'un compte bancaire, alors que plus de 60% des habitants sont équipés de téléphones mobiles, Orange Money propose des services financiers mobiles offrant le confort et la facilité d'effectuer des opérations à distance et en toute sécurité puisqu'elles évitent le transport d'espèces.

Remote power just got easier....



FG Wilson's **latest telecoms generator set range** (6.8 – 22 kVA) now offers up to 1,000 hours between services as a result of the newly designed **long running fuel tanks** (600 – 2,000 litres in capacity).

Improved security measures **protect your fuel** and internal components from theft and vandalism, while state-of-the-art control systems allow you to **monitor and control your generator sets remotely**, making them ideal for isolated locations. These enhanced features will result in **fewer site visits** and greater **cost savings**.

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FG WILSON

Events/Événements 2015

MARCH/MARS

2-5	Mobile World Congress	Barcelona, Spain	www.mobileworldcongress.com
10-11	Cards & Payments Africa	Johannesburg, South Africa	www.terrapinn.com
10-11	The Ecommerce Show Africa	Johannesburg, South Africa	www.terrapinn.com
10-11	The Mobile Show Africa	Johannesburg, South Africa	www.terrapinn.com
10-12	CABSAT	Dubai, UAE	www.cabsat.com
18-19	IT Leaders Africa	Johannesburg, South Africa	www.itleaders.co.za
25-26	Oil & Gas Telecommunications	London, UK	www.oilandgastelecomms.com
26-27	Africa IT & Telecom	Abidjan, Côte d'Ivoire	www.i-conferences.org

APRIL/AVRIL

13-14	Cloud MENA	Dubai, UAE	mena.cloudworldseries.com
15-16	AITEC Southern Africa ICT Summit	Maputo, Mozambique	aitecafrica.com
21-23	MVNO World Congress	Nice, France	mvnosworldcongress.com

MAY/MAI

6-7	Roaming World Congress	Brussels, Belgium	roamingworldcongress.com
12-13	Ecommerce Show Middle East	Dubai, UAE	www.terrapinn.com
12-14	DISTREE Middle East	Abu Dhabi, UAE	www.distree-me.com
13-14	Banking & Mobile Money Uganda	Kampala, Uganda	aitecafrica.com
19-21	Critical Communications World	Barcelona, Spain	criticalcommunicationsworld.com
19-21	Mobile Money & Digital Payments Africa	Johannesburg, South Africa	www.mobile-money-africa.com
20-22	eLearning Africa	Addis Ababa, Ethiopia	www.elearning-africa.com
25-26	Carriers World Africa	Johannesburg, South Africa	www.terrapinn.com
25-26	World Rural Telecoms Congress Africa	Johannesburg, South Africa	www.terrapinn.com
26-27	Connected Africa	Johannesburg, South Africa	www.terrapinn.com
26-27	Satcom Africa	Johannesburg, South Africa	www.terrapinn.com

What's driving global mobile data growth?

AHEAD OF MOBILE World Congress 2015, **Gartner** research director Jessica Ekholm shared her thoughts on what is driving the global growth in mobile data traffic, and how communications service providers (CSPs) and mobile app developers will lead the market. Mobile data traffic will continue double-digit growth in 2015. She said, "Gartner expects traffic to grow 59 per cent this year (see Table 1). Newer and faster networks, a rise in the number of users of these networks, and more affordable 3G and 4G handsets will help to increase data traffic."

On a mobile scale, the key driver of data growth will be mobile applications. Ms Ekholm said, "Although network speed and reliability are priorities for many mobile customers, it is really apps and content that are driving traffic volumes as people increasingly chat to friends and family, watch videos on the move, and listen to streamed music."

What should CSPs and mobile app developers do to harness this growth? Ms Ekholm said that, because the amount of time consumers spend on the Internet, whether via mobile phone, tablet or PC, will continue to increase, "CSPs will need to focus on creating new pricing with a focus on data access, such as shared plans" and they will "need to refine the services they already provide, with a focus on creating richer, more immersive and more personalised experiences, to increase their customer numbers".

As the mobile app market matures, app developers will have to sharpen their focus on the marketing and transparency of their apps, in order to retain customers.

Gartner's research indicates that although affluent people and traditional early adopters are the leading users of new technologies and devices, younger, less wealthy people make greater use of mobile apps. Young people's greater acceptance of apps and mobile content will require app developers to adjust their techniques to address the differences between user groups.

The future will be tough for CSPs and mobile app developers that decide not to upgrade the user experiences they deliver on their services and products. The winners will be those providers best able to satisfy consumers' demand for high data use, while maintaining their margins.

Table 1. Mobile Data Traffic, Worldwide, 2013-2016

Year	2013	2014	2015	2016
Total Terabytes	19,049,158	32,512,824	51,820,492	79,527,408
Growth	80	71	59	53

Source: Gartner (February 2015)

Gemalto releases research on data breaches

Digital security specialist Gemalto has released the latest findings of its Breach Level Index, revealing that more than 1,500 data breaches led to one billion data records compromised worldwide during 2014. These numbers represent a 49 per cent increase in data breaches and a 78 per cent increase in data records that were either stolen or lost compared to 2013.

Continuing with this industry-leading benchmarking from SafeNet following its acquisition by Gemalto, the Breach Level Index (BLI) is a global database of data breaches as they happen and provides a methodology for security professionals to score the severity of breaches and see where they rank among publicly disclosed breaches. The BLI calculates the severity of data breaches across multiple dimensions based on breach disclosure information.

According to data in the BLI originally developed by SafeNet, the main motivation for cybercriminals in 2014 was identity theft with 54 per cent of the all data breaches being identity theft-based, more than any breach category including access to financial data. In addition, identity theft breaches also accounted for one-third of the most severe data breaches categorised by the BLI as either Catastrophic (with a BLI score of between 9.0 and 10) or Severe (7.0 to 8.9). Secure breaches, which involved breaches of perimeter security where compromised data was encrypted in full or in part, increased to four per cent from one per cent.

"We're clearly seeing a shift in the tactics of cybercriminals, with long-term identity theft becoming more of a goal than the immediacy of stealing a credit card number," said Tsion Gonen, Vice-President of Strategy for Identity and Data Protection at Gemalto. "Identity theft could lead to the opening of new fraudulent credit accounts, creating false identities for criminal enterprises, or a host of other serious crimes. As data breaches become more personal, we're starting to see that the universe of risk exposure for the average person is expanding."

In addition to the shift toward identity theft, breaches also became more severe last year with two-thirds of the 50 most severe breaches according to their BLI score having occurred in 2014. Also, the number of data breaches involving more than 100mn compromised data records doubled compared to 2013.

In terms of industries, retail and financial services experienced the most noticeable trends compared to other industry sectors in 2014. Retail experienced a slight increase in data breaches compared to last year, accounting for 11 per cent of all data breaches in 2014. However, in terms of data records compromised, the retail industry saw its share increase to 55 per cent compared to 29 per cent last year due to an increased number of attacks that targeted point-of-sale systems. For the Financial Services sector, the number of data breaches remained relatively flat year over year, but the average number of records lost per breach increased ten-fold to 1.1mn from 112,000.

"Not only are data breach numbers rising, but the breaches are becoming more severe," added Gonen. "Being breached is not a question of 'if' but 'when.' Breach prevention and threat monitoring can only go so far and do not always keep the cyber criminals out. Companies need to adopt a data-centric view of digital threats starting with better identity and access control techniques such as multi-factor authentication and the use of encryption and key management to secure sensitive data. That way, if the data is stolen it is useless to the thieves."

Through its acquisition of SafeNet, Gemalto offers one of the most complete portfolios of enterprise security solutions in the world, enabling its customers to enjoy industry-leading protection of digital identities, transactions, payments and data – from the edge to the core. Gemalto's complete portfolio of SafeNet Identity and Data Protection solutions enable enterprises across many verticals, including major financial institutions and governments, to take a data-centric approach to security by utilising innovative encryption methods, best-in-class crypto management techniques, and strong authentication and identity management solutions to protect what matters, where it matters. Through these solutions, Gemalto helps organisations achieve compliance with stringent data privacy regulations and ensure that sensitive corporate assets, customer information, and digital transactions are safe from exposure and manipulation in order to protect customer trust in an increasingly digital world.

Nigeria to reach 182mn mobile subscribers in 2019

ACCORDING TO A report by Pyramid Research, the Nigerian telecommunications market is expected to generate US$10.9bn in 2019, up from a total of US$9.2bn in 2013. Although growth in the market will be slightly reduced in 2015, as the market recovers from the large number of fixed-line disconnections, long-term growth of the telecommunications sector will not to be affected. The telecoms market will grow at a compound annual growth rate (CAGR) of two per cent over the next five years, with mobile data increasing at 16 per cent up until 2019.

Severin Luebke, analyst at Pyramid Research, said, "Political instability and low oil prices have led to a depreciation of the Naira against the US Dollar, but the telecommunications market will remain an integral part of the country's efforts to diversify its sources of growth."

Although currency devaluations are likely to result in slower US Dollar growth rates, in local currency terms, the Nigerian telecommunications market offers strong growth rates of around 6.8 per cent per year for the period between 2014 and 2019.

Nigeria remains largest mobile market in Africa

With an expected 182mn subscribers at the end of 2019, Nigeria will remain the biggest market for mobile subscription on the African continent. Nigeria is the largest economy in Africa and therefore will play an important role in defining future mobile trends.

"Other countries in Africa are likely to follow Nigeria when it comes to mobile technology developments. The increasing demand for mobile data will offer service providers, as well as new entrants to the market, ample opportunity to test and grow their service offerings in Nigeria," Luebke observed.

Solutions provider NEC showcases carrier portfolio for orchestrating dynamic business on virtualised networks

NEC CORPORATION IS showcasing its portfolio of solutions to help telecom operators use the network as a strategic asset - saving and making money - while delivering a better customer experience in the consumer, enterprise and government sectors at Mobile World Congress 2015.

The smart cities of the future will be able to support a wide diversity of smarter culture, community, transport, environmental, health and education services using flexible and dynamically configurable open network infrastructure. NEC will share its experiences of successfully supporting smart city programmes with the key platforms that enable the collection, sharing and analysis of smart city M2M data. This is in addition to our plans for cityscale software-defined networking (SDN) and network functions virtualisation (NFV) platforms, building on NEC's successful public sector deployments around the world.

Also, NEC has created a springboard for service innovation with NEC's virtualised home gateway. Already the company is cutting the need for home visits by engineers to fix broadband issues. NEC outlines how SDN and NFV enabled virtualised customer premise equipment (vCPE) can also support innovative new media center services, enabling personal content discovery and sharing both within the home and outside.

MVNOs have grown to be a force to be reckoned with. They're essential to help operators reach segments of the market, which operators can't profitably serve themselves, generating higher margins with lower costs of sale. At MWC 2015, NEC highlights how operators can host multiple MVNOs on common virtualized infrastructure, targeting new niches, such as automotive telematics, music or video streaming services, adfunded networks or M2M for agriculture and industry and more. MVNOs can also invest in a virtualised MVNO (vMVNO) gateway directly themselves. It provides a low capital and operational expenditure friendly way of reducing barriers to entry in new markets and creating flexible offerings while avoiding investments in expensive bespoke hardware.

NEC will also look at how 'New Last Mile' services - combined multivendor macro and small cells in a HetNet with self-organisation network features and wireless or fibre backhaul - are enabling operators to boost network capacity in busy urban areas to meet mobile data traffic demand as well as meet their rural licensing obligations.

Furthermore, NEC is enabling carriers to use small cells at the network edge as an enterprise service delivery platform that enables true fixed and wireless convergence in an NFV and SDN environment. For example, the operator's small cell server can be combined with an enterprise's existing onpremise or hosted unified communications and PBX solution, enabling employees to use their smartphones like a desk phone with advanced functions such as hunt groups to route calls to an available team member, free internal transfers and least cost routing for international calls.

Finally, NEC outlines at MWC how carriers can be successful with verticalised SME cloud software and services marketplaces. NEC is able to dramatically cut the time it takes telecom operators to launch a cloud app store to a matter of weeks and keep CAPEX very low with its cloud brokerage service and sales consultancy services.

Ruckus brings smart technology to enable carrier-class Wi-Fi Calling

ADVANCED SYSTEMS SUPPLIER **Ruckus Wireless** has introduced a collection of Smart Wi-Fi technology software innovations that address the growing demand for higher quality IP-based voice calling over Wi-Fi.

These innovations are being integrated as standard features within the Ruckus portfolio of Smart Wi-Fi products to help ensure crystal clear Wi-Fi calling voice quality in the most challenging Wi-Fi environments. These innovations will be demonstrated by Ruckus for the first time at Mobile World Congress 2015, having been successfully tested already with two of the biggest mobile network operators (MNOs) in the USA.

"The innovations we've made will improve the reliability and quality of Wi-Fi calling applications, which enables both service providers and enterprises to extract greater value from their Wi-Fi infrastructure," said Dan Rabinovitsj, chief operating officer at Ruckus Wireless. "While voice over Wi-Fi isn't new, the ability to deliver a carrier-class voice service over Wi-Fi is something that no one has mastered, until now."

The new Ruckus Smart Wi-Fi innovations for Wi-Fi calling address essential roaming and quality of service (QoS) requirements. They enable real-time, bidirectional voice calls that demand a narrow set of operating parameters from the network designed to ensure the highest quality Wi-Fi calling experience. Innovations in the portfolio include a variety of new proprietary capabilities such as capacity-based client access control, Wi-Fi multimedia admission controls, directed roaming, and automatic packet flow heuristics. The integration of these and other new Smart Wi-Fi innovations into Ruckus products helps organisations ensure optimal performance of voice over Wi-Fi communications.

Advances designed to optimise roaming and quality of service (QoS) for delay-sensitive voice traffic, include: automatic QoS heuristics; capacity-based client access control; directed roaming; and Wi-Fi multimedia (WMM) admission control.

Samsung delivers advanced Android enterprise mobility solution

GOOD TECHNOLOGY AND **Samsung Electronics** have announced the immediate availability of Good for Samsung KNOX, merging Good's app container and broad app ecosystem with the Samsung KNOX enterprise security platform for **Android**. The launch of Good for Samsung KNOX represents the next step in the partnership between Samsung and Good to deliver world-class mobile enterprise security solutions, first announced at Mobile World Congress 2014.

This joint solution creates the most secure solution for enterprises and government agencies looking to accelerate their Android programs to drive secure mobile productivity. Good is now the only enterprise mobility management (EMM) provider whose secure container platform and app ecosystem is integrated directly into the KNOX security stack.

Good for Samsung KNOX creates a Good-Secured Domain within KNOX's Security-Enhanced Android operating system, where any Good apps, Good-secured apps, or custom apps secured by the Good Dynamics® Secure Mobility Platform reside. Good also provides comprehensive support for KNOX's extended mobile device management (MDM) API set.

"The largest companies in the world trust Good Technology as the secure mobility leader, including all of the Fortune 100 commercial banks and other industry leading companies in over 190 countries," said Christy Wyatt, chairman and CEO of Good Technology. "By partnering with Samsung to integrate our container and secure app ecosystem with the KNOX platform, we are delivering a comprehensive, layered solution to secure Samsung Android devices in the enterprise."

Injong Rhee, executive vice president of enterprise business, IT and mobile business at Samsung Electronics, said, "The combination of Samsung and Good represents the best solution for secure enterprise Android productivity – no matter whether corporate-liable, COPE or BYOD device ownership models are being used."

Epic Flexibility, Endless Connectivity

Reliable, five-bar connectivity for service providers in emerging markets

With Epic^{NG}, Intelsat's next-generation, high-throughput, backhaul solution, delivering future connectivity in Africa just got easier. Intelsat Epic^{NG} is engineered for mobile operators that need to serve remote customers, across any terrain, regardless of conditions. Best of all, Epic^{NG} works with your existing infrastructure, making it the most cost-effective and reliable solution for your network.

Only Intelsat, a company with 50 years of technical and operational expertise, a global fleet of approximately 50 satellites, and the next-generation satellite platform, can promise you epic flexibility and endless connectivity.

INTELSAT.
Envision. Connect. Transform.

www.intelsat.com/AfricaBB2

CVidya addresses new challenges for marketers

REVENUE ANALYTICS SOLUTIONS supplier **CVidya** launched its 'Enrich' marketing analytics solution for communications service providers (CSPs) at AfricaCom 2014. At the event, Gabi Starobinski, cVidya regional sales account manager, said, "Communications service providers are facing new challenges and must find innovative ways to have an edge on the competition, as well as identify new revenue streams from internal and external sources. The continuously growing volumes and types of customer behavioural data offer many new insights about customers' profiles and their interests which can generate real opportunities to increase revenues and drive loyalty."

According to Mr Starobinski, "The main challenge marketers face today is to effectively and quickly leverage the vast amounts of available customer data, identify the hidden

Gabi Starobinski, cVidya regional sales account manager

opportunities and translate their challenges and business questions into actionable insights. The Enrich solution will enable CSPs to overcome these challenges. It offers pre-defined analytical use cases, based on domain expertise, utilizing relevant attributes and data models; guided flows to answer specific business questions; business-orientated and intuitive user-interface for marketers and analysts; big data processing capabilities generating unique analytical insights; a constantly evolving environment to support operators' ever-changing marketing challenges and objectives. The solution includes numerous capabilities which include six business focused modular packages and advanced analytics models."

It is a comprehensive, highly-visualised and actionable insight solution for identifying new revenue streams, improving CLTV (customer time life value) and maximising network use. The solution is to be used by CPSs world-wide.

Innovations around AfricaCom

THERE WERE NUMEROUS innovations at AfricaCom 2014. Communications Africa/Afrique highlights the following:

WeDo Technologies demonstrated its next-generation fraud management system - RAID:FMS 7, which now combines analytical models for advanced fraud detection and rule base detection mechanisms to fight fraud even more effectively for known and unknown fraud threats. . RAID:FMS 7 enhanced user interface also sets a new benchmark for response and resolution times, managing every step of fraud detection and investigation until the point of resolution.

Pedro Mariano Teixeira, WeDo Technologies

Telrad Networks announced that pan-Africa telecoms operator Godwana International Networks company (iWay Africa) would deploy Telrad's Dual Mode solutions to evolve their network from fixed WiMAX to TD-LTE. Working with Telrad, iWayAfrica will bring enhanced connectivity to their growing base of business subscribers in Nairobi – with aggressive plans to expand into their remaining Sub-Saharan coverage area.

RAD exhibited the industry's first dedicated customer-edge distributed network functions virtualisation (D-NFV) solution. This is based on the company's ETX, a powerful layer2/layer 3 network terminal unit (NTU). The NTU is equipped with a D-NFV x86 server module that functions as a virtualisation engine at the customer edge.

Anite, specialist in wireless testing technology, amongst their new products, demonstrated the Nemo Invex II, an "accurate efficient easy to use and application-rich benchmarking system for wireless networks". The system combines powerful, software and scalable, robust hardware to create a strong solution for benchmarking wireless networks and devices.

Nomanini demonstrated its rugged point of sale terminal and highly scalable, cloud-based backend, which together enabled enterprises to efficiently distribute prepaid mobile and electricity vouchers and facilitate micropayments in markets across Africa and beyond. Vahid Monadjem, Nomanini co-founder and CEO explained, "We wanted the device to be simple and accessible to people of all languages, and even those who can't read, so we decided not to include a screen. This made the device much more resilient and forced us to ensure that the process for accepting transactions is as easy as possible."

Voxox fights for MNOs with the Cloud Phone

"TO FIGHT FIRE with fire and help MNOs claw back the revenue they are losing to the hundreds of OTT players in the field is one of our main goals," said Bill Hearmon, **Voxox** director, business development Africa, at AfricaCom, held recently in Cape Town, South Africa.

Voxox, the fully-fledged telephone company, which has often been referred to as 'Skype on steroids', is leveraging the 'cloud' to deliver a full suite of highly innovative communication services affordably on a global basis.

"We design our award-winning solutions to be re-branded and deployed by our partners within a matter of weeks and offer an extremely flexible solution and business models with no CAPEX using revenue share or white label," said Hearmon.

"Our solutions are to be strengthened by the Cloud Phone, which is a breakthrough virtual PBX and business communications solution that is affordable and very easy to set up and offers the ability to accept calls using a professional (IVR) greeting, enable extension dialing to any employee or department, route the calls to their phone numbers (Reach Me Anywhere), leave visual voicemail messages and recording," he added. "We are partnering with some of the largest OEMs in the world to offer Cloud Phone under their brand and several MNOs are trialing the product to offer business communication services to their small to medium enterprise customers and generate more MRR."

"Our Cloud Phone and our Voxox applications run on our award-winning service delivery platform, which is currently processing more than three billion calls and hundreds of millions of messages per month to our wholesale, SME and consumer customers," said Hearmon.

Cloud Phone, currently used in North America, is to be introduced in Africa and the Middle East later in 2015.

Voxox is leveraging the 'cloud' to deliver a full suite of highly innovative, affordable communication services

Liquid Telecom and Newtec join forces to connect Africa by satellite

AS WIRELESS DEVICES like smartphones and tablets continue to grow in popularity in Africa, with 800mn people out of a total population of 1.125bn now owning a mobile device, more and more people in the region are demanding Internet connectivity. This desire to connect has powered a lot of growth in the African wireless communications market over the past year and yet still only around 300 million people have Internet access.

Liquid Telecom uses Newtec technology to provide broadband connectivity and enterprise services in Sub-Saharan Africa

Why is satellite key to achieving widespread coverage?

When it comes to Internet connectivity, Africa presents a unique challenge. Not only is it a vast continent, it also has largely underdeveloped areas where a permanent infrastructure is only just beginning to emerge. In addition, as an operator, we also have to contend with scarce power sources, regulatory issues for shipping and licensing, and a rocky political landscape. Consequently, providing seamless Internet access to people all over Africa would prove to be very expensive and difficult.

The role of satellite

This is where satellite comes in. At Liquid Telecom, we work according to our philosophy that everyone in Africa has the right to be connected and our goal is to achieve just that. Over the last decade, this vision to connect Africa has helped us change the face of communications in the region, with satellite playing a crucial part in that.

Although fibre networks are the fastest available broadband solution to provide Internet access, the installation of such networks is not always possible. As a result, we use satellite to complement our fibre networks, especially in rural and remote areas. This past year has been particularly busy for Liquid Telecom's satellite business, thanks in no small part to our partner Newtec and our long history of VSAT in Africa. Projects have ranged from remote brand connectivity for financial institutions to Internet access for remote communities. VSAT continues to be a big part of Liquid Telecom's business and one of the fastest growing departments within the company.

Liquid Telecom and Newtec

Most notably over the past year, Liquid Telecom has completed the installation of a Newtec Sat3Play Broadband Hub and terminals in Johannesburg, providing both broadband connectivity and enterprise services in Sub-Saharan Africa. We chose to procure Newtec technology for this project because we knew we would get the best technical and commercial advantage to take our enterprise solution and broadband services to markets across the African continent.

Since installation, the Newtec hub has gone from strength to strength. Almost a thousand terminals have been installed to date and more are on the way. The service has proven popular with customers, ranging from home users and enterprise customers to state funded and government projects. The service has also been recognised with a number of awards, the most recent of which was an AfricaCom award for Most Innovative VSAT Product. This was possible due to the technical capabilities of the Newtec VSAT platform and our excellent partnership.

The next steps

Elsewhere, we are also constantly looking to improve network uptime and reliability of our fibre network, which is the largest independent international fibre network across Africa. The network is already combined with a VSAT system to improve uptime and reliability.

Again, this is where the Newtec technology comes in.

In traditional systems, you have to choose to operate between SCPC and MF-TDMA, making it a one-time choice. Newtec has three different technologies available that can be dynamically selected to offer optimal performance for a given service and user profile. In addition to SCPC links and MF-TDMA, a third and innovative technology called Mx-DMA™ is also offered. This highly efficient and patented return technology combines the best features of MF-TDMA and SCPC technologies together, solving that difficult choice of selecting one or the other.

The Mx-DMA technology is available on Newtec Dialog and with our fibre network growing at a rate of 100km per week and our continued growth plans for the satellite operation, this fits in perfectly. Once the Newtec Broadband hub is filled, we'll be looking at the next step in satellite - the Newtec Dialog multiservice platform and its capabilities. This will assist us with our enterprise customers, which require a very flexible approach in what you offer. Our approach is to build solutions which fit their requirements rather than trying to fit their specification into a product which already exists. Newtec Dialog would help us build on that approach and enable us to go after all market verticals across the continent while offering increased efficiency.

Working together to achieve a bright digital future for Africa

Ultimately, our aim is to build Africa's digital future and make communicating easier for everyone, not just our customers. The global VSAT forum and ITU recognise the regulatory challenges that we have to overcome in order to do this and it is very much about working with Governments and convincing them that facilitating connectivity is important for their communities.

As we work towards this goal, demand is also vital. I predict we will see this from two areas. Firstly, schools in rural areas connecting for eLearning. Secondly, as our customers grow their businesses, their connectivity demands will also increase.

Overall, with the right technology and solutions, I am confident that the challenges that exist can be overcome and Africa's bright digital future realised.

Scott Mumford,
group head of satellite services at Liquid Telecom

Airtel Money, le plus grand service financier en RDC

LE SERVICE DE commerce mobile, Airtel Money, a franchi le cap du million de clients générateurs de revenus en République démocratique du Congo (RDC) : 1 million d'utilisateurs enregistrés.

Franchir le seuil du million est significatif en ce que la RDC a le plus grand potentiel d'argent mobile en Afrique en plus du Nigéria et de l'Ethiopie, comme l'indiquent les statistiques de l'industrie. La RDC se positionne comme le seul marché en Afrique - en dehors de la région de la Communauté de l'Afrique orientale et du Zimbabwe - où l'argent mobile a franchi un tel cap.

Christian de Faria, le PDG de Airtel Afrique, et Kin Kiey Mulumba, Ministre de Télécommunications, République démocratique du Congo

Christian de Faria, le PDG de **Airtel Afrique**, a déclaré que "l'importance d'un canal financier sûr, sécuritaire et pratique ne peut être surestimée en Afrique sub-saharienne, où les entreprises comme Airtel investissent pour s'assurer que la bonne infrastructure est en place, de sorte que les économies puissent pleinement maximiser les opportunités existantes et potentielles".

Alain Kahasha, le directeur général de Airtel RDC pense que ceci est une étape-clé pour Airtel Money et nous sommes ravis que le service est en passe de devenir utile à la conduite de l'économie de la RDC et à l'autonomisation des personnes. Il a dit: "Alors que nous célébrons cette réalisation, la RDC reste l'un des marchés où l'argent mobile a un impact socio-économique, les services d'avant-garde tels que le paiement des salaires de la fonction publique, en partenariat avec le gouvernement."

Sur le chemin vers cette réalisation, Airtel RDC a établi et élargi des partenariats durables avec les institutions financières pour élargir l'accès de l'argent mobile résultant d'une révolution numérique en RDC. L'importance et l'effet positif de l'argent mobile sont maintenant largement ressentis par les petites et moyennes entreprises (PME) contribuant ainsi de manière significative à la croissance de l'économie.

Diligent gagne 400 clients dans l'EMEA

DILIGENT, FOURNISSEUR DE la solution Diligent Boardbooks, le portail pour conseil d'administration le plus utilisé au monde, a annoncé récemment que plus de 400 sociétés d'Europe, du MoyenOrient et d'Afrique utilisent à présent sa solution en vue de produire, diffuser et communiquer des informations confidentielles à leur conseil d'administration, équipes de direction et comités de gestion.

« La sécurité de l'information est primordiale pour toutes les entreprises, quelle que soit leur taille, et c'est l'une des raisons essentielles pour lesquelles elles choisissent d'utiliser la solution Diligent Boardbooks », déclare Charlie Horrell, Directeur général chez Diligent pour l'Europe, le MoyenOrient et l'Afrique.

Sonic Foundry collabore avec Sony pour étendre la portée des déploiements de capture de cours

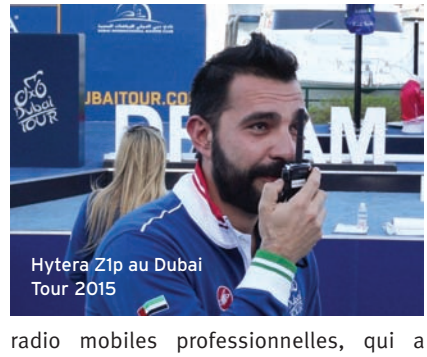
SONY PROFESSIONAL SOLUTIONS et **Sonic Foundry** a developpé une solution technologique visant à introduire des déploiements de capture de cours plus efficaces et plus évolutifs. La prochaine génération des enregistreurs Mediasite prend en charge un flux vidéo et audio synchronisé directement à partir de caméras IP telles que la caméra PTZ télécommandée Full HD SRG-300SE de Sony. Sony a développé cette solution spécifiquement pour fonctionner avec Mediasite en mettant l'accent sur la fourniture d'une synchronisation audio améliorée. Une fois capturée par Mediasite, la vidéo et l'audio sont alors gérées, indexées et diffusées via la Mediasite Enterprise Video Platform.

De pair avec Mediasite, le leader mondial du marché en capture de cours, cette caméra à distance innovante de Sony permet d'étendre la portée d'une capture vidéo de haute qualité aux salles de classe et aux espaces d'apprentissage de n'importe quelle taille et de n'importe quel niveau de préparation AV pour répondre à la demande croissante qui existe pour le streaming et l'enregistrement des cours.

« Nous sommes fiers de collaborer avec Sonic Foundry pour offrir des options innovantes et économiques aux clients désireux d'étendre aggressivement leurs déploiements de capture de cours avec vidéo », a déclaré Alessandro Marcello, directeur produits des solutions de communication visuelle chez Sony Europe . « Nous sommes heureux de fournir plus d'options qui leur permettront de moduler la capture vidéo et de surmonter les barrières technologique potentielles dans les salles. »

« Avec des collaborations telles que celle-ci, nous aidons nos clients à surmonter les difficultés qu'ils rencontrent quand ils projettent des déploiements vidéo de plus en plus centralisés et importants. Ceci leur permet d'envisager un avenir dans lequel la capture des cours peut être déployée intelligemment, avec agilité et à échelle à travers le campus », a ajouté Rob Lipps, vice-président exécutif de Sonic Foundry.

Nedaa et Hytera fournissent des radios TETRA de classe mondiale pour le Dubai Tour 2015



Hytera Z1p au Dubai Tour 2015

PROFESSIONAL COMMUNICATION CORPORATION et **Nedaa**, l'unique et le plus important opérateur TETRA de Dubaï, ont eu l'honneur de s'associer avec **Hytera Communications**, un fournisseur de premier plan de communications radio mobiles professionnelles, qui a offert un support de communications fiable et homogène à l'événement cycliste majeur - le Dubai Tour 2015.

Le premier Dubai Tour a été organisé en 2014, puis la course s'est élargie pour accueillir, en 2015, 16 équipes du World Tour. Dès le début, Nedaa a été officiellement choisie par le comité d'organisation pour devenir le fournisseur de solutions de communications, en raison de son excellence en termes de planification et de services techniques.

A l'occasion du 2nd Dubai Tour, Nedaa a intégré Z1p, le tout dernier émetteur-récepteur radio TETRA portatif d'Hytera, à son réseau, qui offre une couverture intégrale des 4 pistes pour une longueur totale de près de 700km. Hytera Z1p a été développé en correspondance parfaite avec TETRA, la norme ouverte **ETSI**. Cette solution radio possède une robustesse de norme militaire et des fonctionnalités permettant de garantir un niveau élevé de sécurité publique, associées à un boîtier ultra-fin, d'à peine 23mm, comportant un clavier complet. L'étude sur site réalisée par Nedaa montre que son système et le Z1p d'Hytera Z1p agissent en synergie parfaite dans centres-ville aux nombreux gratte-ciels, les terrains dégagés et les collines.

Un plan de mobilité intelligente

Au salon CES, Ford expose de nouvelles idées et répondre aux défis de plus en plus nombreux ou croissants en matière de transport

AU CONSUMER ELECTRONICS Show (CES) 2015, Ford montre comment l'innovation est utilisée non seulement pour créer de nouveaux véhicules perfectionnés, mais aussi pour changer la mobilité du monde en résolvant les problèmes de transport mondial d'aujourd'hui qui sont de plus en plus nombreux.

Le PDG de Ford, Mark Fields au CES 2015

L'innovation dans toutes activités

L'entreprise a annoncé son plan Ford de mobilité intelligente qui doit utiliser l'innovation pour la faire passer au niveau supérieur en termes de connectivité, de mobilité, de véhicules autonomes, d'expérience client et de big data. Ford a également annoncé 25 expériences de mobilité dans le monde cette année pour tester des idées révolutionnaires de transports afin de créer de meilleures expériences client, des modèles d'utilisation et d'expédition plus flexibles et une collaboration sociale qui soient gratifiants pour les clients.

Ford au salon CES annonce un plan de mobilité intelligente et 25 expériences mondiales visant à changer la mobilité du monde

Ford au salon CES annonce un plan Ford de mobilité intelligente qui doit utiliser l'innovation pour faire passer la société au niveau supérieur en termes de connectivité, mobilité, véhicules autonomes, expérience client et big data 25 expériences mondiales de mobilité ont été lancées cette année pour tester de nouvelles idées et répondre aux défis de plus en plus nombreux ou croissants en matière de transport les connaissances obtenues détermineront les futurs investissements de Ford

Ford expose SYNC 3, son système de connectivité embarqué le plus avancé et présente ses véhicules semiautonomes sur le marché aujourd'hui et ses véhicules entièrement autonomes en cours de développement

« Alors même que nous exposons des voitures connectées et que nous partageons nos projets de véhicules autonomes, nous sommes ici au CES avec un but plus noble », a indiqué le PDG de Ford, Mark Fields. « Nous poussons l'innovation dans toutes nos activités afin d'être une entreprise axée sur les produits et sur la mobilité, et pouvoir au final changer la mobilité du monde tout comme notre fondateur Henry Ford l'a fait il y a 111 ans. »

Au CES également, Ford fait la démonstration du SYNC 3, son système de connectivité embarqué le plus avancé tout en présentant ses véhicules semiautonomes sur le marché aujourd'hui et ses véhicules entièrement autonomes en cours de développement.

Des expériences mondiales de mobilité

Le plan Ford de mobilité intelligente va commencer par 25 expériences (huit en Amérique du Nord, neuf en Europe et en Afrique, sept en Asie et une en Amérique du Sud). Chaque expérience est conçue pour prévoir les souhaits et les besoins des clients dans l'écosystème des transports de demain.

« Nous envisageons un monde où les véhicules se parlent les uns aux autres, où les conducteurs et les véhicules communiquent avec l'infrastructure des villes pour soulager les embouteillages, et où les gens partagent régulièrement des véhicules ou des formes multiples de transport pour leurs trajets quotidiens », a déclaré M. Fields. « Les expériences que nous entreprenons aujourd'hui vont conduire à un modèle de transport et de mobilité inédit d'ici les dix prochaines années et audelà.

SYNC 3

Également au CES, Ford a présenté SYNC 3, le système de communication et de divertissement de la société qui est plus rapide, plus intuitif et plus facile à utiliser avec une meilleure réponse aux commandes du conducteur.

La technologie de reconnaissance vocale plus conversationnelle du SYNC 3, son écran tactile offrant une expérience davantage similaire à celle d'un smartphone et ses graphismes faciles à lire aideront des millions de conducteurs à être connectés à leur vie et à contrôler leur smartphone quand ils sont sur la route.

Véhicules autonomes Ford

Ford a aussi présenté ses véhicules semiautonomes sur le marché aujourd'hui et ses véhicules entièrement autonomes en cours de développement pour le futur.

« Nous construisons et vendons déjà des véhicules semiautonomes qui utilisent des logiciels et des capteurs pour aider au stationnement (parallèle et perpendiculaire), ajuster la vitesse en fonction de la circulation ou actionner les freins en cas d'urgence », a indiqué M. Nair. « Il y aura un véhicule autonome Ford à l'avenir, et nous prenons très au sérieux la commercialisation de ce type de véhicule. » ✆

Creating connected communities alongside AfricaCom

A strong focus on LTE deployment and operation in Africa, addressing monetisation, traffic management, spectrum management, and network development

AS LTE SUBSCRIPTIONS in Africa continue to grow, and with 50 per cent of the population expected to be covered by LTE networks by 2018 [1], LTE stands to change the region's communication landscape forever. With this in mind, the LTE Africa event co-located with AfricaCom 2014 provided the perfect setting to bring together the pan-African LTE ecosystem. The three-day conference and exhibition in Cape Town explored the key contributing factors for LTE success, including the development of sustainable business models, the need for enhanced spectrum management and backhaul optimisation.

Challenges and opportunities

LTE Africa kicked off with a conference speech from Safaricom's CTO, Thibaud Rerolle, on the key factors for the success of LTE in Kenya. Following this, the session offered an overview of the practical challenges hindering LTE deployment and how these can be solved. There was a panel on overcoming the obstacles of successful LTE deployment, attended by senior representatives from Airtel Africa, Surfline Communications, Alcatel Lucent, MTC Namibia and Smile Communications. The first day of the event also included a dedicated session led by the 3GPP addressing a range of important standardisation issues. Closing the day, speakers from China Communications Services and Telkom Mobile focused on the opportunities and challenges of TD-LTE in Africa, including combining TD-LTE and FD-LTE networks, using TD-LTE as a differentiator and the opportunities for spectrum efficiency with TD-LTE.

One of the speakers, MTC Nambia CEO Miguel Geraldes, said, "LTE for our industry, in particular for Mobile Network Operators, is not a yes or a no, but a when. Regarding this, MTC started very early and focused on LTE in May 2012 and is now reaching a relevant success case that can be shown to others; increasing 3.6 folds total data since the launch of the 4GLTE until now, of which the 4GLTE component is currently generating the data that is processed by MTC's Network. MTC's achievement's together with other accomplishments of others MNO's, in my opinion, is valuable enough to attend the LTE Africa event."

Technical issues

The event's second day addressed the key technical challenges of LTE deployment, such as the need to optimise core and radio access networks to cater for increased traffic from LTE, the implementation of fibre backhaul, test and measurement solutions and network security concerns. Wilson Berthold Tsibo, group CTIO of Azur Telecom Group, revealed how to guarantee a successful LTE rollout, including the way to access new spectrum space for LTE and how to maximise the opportunities for spectrum-reframing. Day Two closed with discussions on optimising the fibre backhaul - with Dr Marten Scheffer, general manager of network engineering at Neotel, analysed schemes to share LTE backhaul and address the challenge of financing LTE backhaul. Smile Communications COO Tom Allen, who presented at the conference, said, "LTE Africa is one of very few events in the region where LTE is given centre stage. As a very rare animal - a green field new entrant in the mobile sector - we feel it is an ideal venue to promote our view of the future using LTE and to discuss other people's approaches in an open and friendly manner. We believe that LTE will transform the data and voice markets in Africa, but the exact shape of that transformation is still being created, participating in the event will help shape what Smile delivers to the market and we hope that what we say and more importantly do, will help shape what others do."

Presenting the business case

Commercial aspects of LTE rollout, particularly in regards to monetising LTE and effective business models, were the focus of the final day of the event, bringing together a number of operator case studies. Irene Charnley, CEO of Smile Communications, opened the day with a case study presentation focusing on overcoming the challenges of an African LTE launch, addressing key monetisation concerns and showcasing the revenue opportunities. This was followed by a presentation from Surfline's director of marketing, Rosy Fynn, showcasing their LTE deployments in Ghana. Day Three of the LTE Africa event also provided a platform for presentations from the CEO of MTC Namibia, the senior director of Mobile Core Planning at Etisalat UAE, and Vodacom's head of m-health in emerging markets who all highlighted activities and plans for monetising LTE and making the most of these faster and more efficient networks.

The event finished with a review of the devices that enable LTE at present, and those devices set to bring LTE to more Africans. The key analysis was centred around how these devices can be made accessible, affordable and accountable through collaboration with network operators and device manufacturers. Mohammed Redi Abshero, senior director of mobile core planning at Etisalat UAE, said, "The fast pace of mobile broadband, exciting apps and ever increasing customer demands, requires cooperation among the Telecom industry. LTE Africa event is a very good opportunity to discuss the latest development in LTE and to share VoLTE experience. Moreover, it is the most important event to meet and to share notions with the leading experts and decision maker in the region."

LTE Africa and AfricaCom together hosted over 160 exhibitors from across Africa - including Vodacom, Telkom, Google, Nokia Solutions and Networks, and Samsung. ✆

1. Source: ABI Research (February 2014)

Innovative ideas from Safaricom

SAFARICOM HAS LAUNCHED an interactive portal dubbed Zindua Café (www.safaricom.co.ke/zindua) through which external innovators and developers countrywide will be able to share their ideas, applications and prototypes with Safaricom.

"Over the years, we have received numerous proposals from customers on new ideas, products and services. This portal will serve as a central place where those ideas are captured while ensuring that Intellectual Property and other laws are given due regard," said Joe Ogutu, director of strategy and innovation at Safaricom.

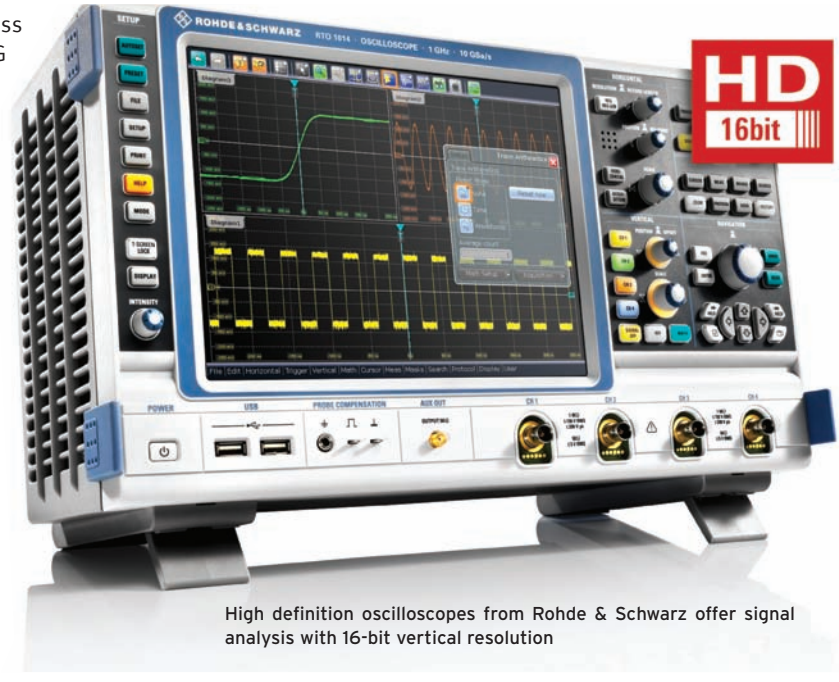
Over the last few months, Safaricom has engaged the innovation ecosystem through a number of initiatives, including the Safaricom Spark Venture Fund, and the annual Safaricom Appstar and Appwiz challenges.

Sharper signals, more precise pictures

As demand for electronic test equipment increases, high definition oscilloscopes enable vastly improved signal analysis in high definition

EFFORTS TO WIDEN network coverage across Africa, and upgrade 2G and 3G networks to 4G in South Africa, is driving the demand for electronic test equipment in the telecommunication sector. Telecom operators are increasingly looking for spectrum analysers to test and validate the mobile networks to improve the quality of their service as signal strength in Africa is very poor. Analysis from Frost & Sullivan, published in 'African Electronic Test Equipment Market', finds that the market earned revenues of US$28.3mn in 2013 and estimates this to reach US$47.5mn in 2019.

"The growing demand for oscilloscopes, signal generators, and spectrum analysers in the education sector is lending momentum to the market," said Frost & Sullivan measurement & instrumentation research analyst Janani Balasundar. "Market participants should roll out comprehensive electronic test equipment with multiple functionalities to cater to the needs of technical research and PhD students."



High definition oscilloscopes from Rohde & Schwarz offer signal analysis with 16-bit vertical resolution

Security investments in the aerospace and defence industry make it the largest end user of spectrum analysers for frequency-monitoring applications, network analysers, signal generators, and power meters are growing the market. Heavy infrastructural investments in other industries are also fuelling the uptake of millimetres and boosting prospects for electronic test equipment manufacturers. However, the poor economic condition and unstable currency of South Africa, a trading partner to several neighbouring sub-Saharan countries, is delaying projects and slowing down the growth of the electronic test equipment market in all of these countries.

"Electronic test equipment vendors should focus on fast-developing countries like Ghana and Nigeria, where there is great market potential," advised Janani. "They must also constantly make end users aware of the latest technologies in the test and measurement industry to strengthen their market position across Africa."

Improvements in observations of electrical signals

The study covers oscilloscopes, spectrum analysers, network analysers, millimetres, signal generators, power meters, electronic counters, logic analysers, and arbitrary waveform generators. One area of particular interest, from a telecoms perspective, is development of oscilloscope use. And one manufacturer is demonstrating leadership. A new high definition (HD) mode increases the vertical resolution of the Rohde & Schwarz (R&S) RTO and R&S RTE oscilloscopes to up to 16 bits - a 256-fold improvement over 8-bit resolution. Waveforms are sharper and show signal details that would otherwise be masked by noise. Users benefit from even more precise analysis results.

High definition describes the capability of R&S RTO and R&S RTE oscilloscopes to work with applications for which a high vertical resolution is essential. This is especially the case when low-voltage components on a signal that also exhibits high-voltage components need to be analysed in detail. One example is the characterization of switch mode power supplies. The voltages across the switching device must be determined during the off and on times within the same acquisition. Because the voltage variations during these switching cycles can be several hundred volts, a high resolution is essential for the precise measurement of small voltage components.

Working with better ratio and resolution

The high definition mode increases the vertical resolution of Rohde & Schwarz oscilloscopes to up to 16 bits - a 256-fold improvement over 8-bit resolution. To achieve this higher resolution, the signal is low-pass filtered directly after the A/D converter. The filter reduces the noise, thereby increasing the signal-to-noise ratio. Users can adjust the bandwidth of the lowpass filter from 10 kHz to 500 MHz as needed to match the characteristics of the applied signal. The lower the filter bandwidth, the higher the resolution.

The higher resolution leads to a sharper waveform display, showing signal details that would otherwise be masked by noise. To be able to analyse these waveforms in detail, the input sensitivity of the oscilloscopes has been increased to 500 µV/div. Thanks to the low-noise frontend and the highly accurate single-core A/D converter, the R&S RTO and R&S RTE oscilloscopes have an excellent dynamic range and measurement accuracy. Switching on high definition mode allows users to benefit from even more. ✆

Africa's real-time demand for network evolution

As data traffic continues to grow in the continent, operators need to find an efficient and cost-effective way to offer a richly featured real-time interface between individuals and the digital world

THE AFRICAN CONTINENT is rapidly developing economically, socially and politically. As it does, its citizens and businesses are working hard to shed the label of 'developing' in order to be considered as a 'developed' continent. Nowhere is this more evident than across the telecoms sector, where Communication Service Providers (CSPs) are rapidly developing their networks to meet the growing demand for mobile users, devices and mobile penetration across the region.

International Data Corporation (IDC) has predicted that this development will continue as smartphone ownership explodes and African mobile users become more sophisticated in their use of mobile applications and data-centric services.

Consumers now expect a more data-orientated mobile experience, coinciding with the growing adoption of OTT services, banking applications and location based services. There are also more instances in many regions, notably sub-Saharan Africa, of people using their mobile phones to access the web. As data traffic continues to grow, operators need to find an efficient and cost-effective way to transcend simple person-to-person voice communication, and offer a richly featured real-time interface between individuals and their digital world. A tangible response to this challenge will be to start by focusing on delivering real-time capabilities for policy and charging.

This transformation will give CSPs the agility and flexibility to compete in Africa's competitive and bourgeoning telecoms marketplace. It will allow them to quickly and cost-effectively respond, change course as needed, adopt more appropriate strategies to support emerging business models and high volumes of network traffic, and support device proliferation.

Currently, the consumer market in Africa is buoyant and is the key driver for network development. However, with competition mounting, the subsequent price pressure is putting strain on the top line revenues of traditional CSPs.

Working with tight budgets, CSPs need to ensure that they provide a consistent customer experience otherwise defection and customer churn will occur rapidly. At the same time, however, they cannot afford the huge CAPEX and OPEX outgoings established Western operators spend to maintain high levels of service. When faced with the challenge of remaining highly efficient and nimble, but also ensuring outgoings are kept to a minimum to maintain profitable, the task is clear to see. Fundamental to achieving and meeting the demands of a modern CSP is the acceptance that existing approaches to online charging and policy are fundamentally limited.

Users are increasingly moving away from traditional voice and SMS, and now additionally using their devices for data-intensive activities

To solve challenges, CSPs need to compete on the fast-paced, customer-centric innovative terms of modern service providers

Users are increasingly moving away from traditional voice and SMS, and now additionally using their devices for data-intensive activities. This is not to say that voice has become redundant, but it needs to be redesigned for an LTE world. This is putting pressure on operators to develop real-time processing to meet these growing expectations.

Many CSPs on the continent (with the exception of MTN and Vodacom) cannot afford to run their own dedicated data centres or IP transit networks. Instead they require 'low cost to serve' IT systems that can benefit from 'plug and play' technology. IT systems that facilitate new data-centric applications, services and personalised pricing and discounted deals, provide a more personal customer experience and, as a result, carry stronger future revenue growth potential.

CSPs need to stop relying on old thinking and old technology to solve today's challenges. Instead they need to compete, not on dated telecom terms, but on the fast-paced, customer-centric innovative terms of modern service providers. This means breaking free of the shackles of vendor lock-in and proprietary 'closed' solutions. Instead they need to enable their own highly configurable changes in their system, without relying on hardware vendors, who are notoriously slow and expensive when implementing change.

By achieving the necessary network transformation to enable real-time charging and policy solutions, CSPs can open up a wide range of opportunity for business development. The finance, retail, health, education and agriculture sectors all benefit from data connectivity and services

The African continent is experiencing a far more accelerated state of change than the rest of the globe. It is extremely important that operators prepare themselves for the explosion of data traffic, and are equipped to meet the new demands from their subscribers.

The key to this transition isn't merely a technological issue as many may think: it's not simply about old hardware becoming virtualised or billing service becoming 'real-time'; it's not about having an edgy brand advocate or social media profile, and nor is it just about a change from one customer approach to another — rather, it's about a fundamental change to the ideology of the business that enables cost effect, agility and flexibility. ✆

Jennifer Kyriakakis, founder and V-P marketing at MATRIXX

Une vision concernant l'Afrique

L'heure est venue de mettre la révolution du haut débit au service de la population, selon le directeur général d'Alcatel-Lucent

TOUT D'ABORD, POSONS-NOUS une question : Pourquoi l'Afrique ? Parce qu'elle est au cœur de l'avenir. Il s'agit d'une région importante, en pleine croissance et pour nous, c'est évidemment un marché cible. Globalement, l'Afrique représente l'un de nos marchés les plus prometteurs – l'accès très haut débit et les réseaux IP sont importants pour le développement du continent.

Le marché africain a besoin de ces technologies pour les années à venir, et les fournisseurs de services et les opérateurs africains nous les demandent déjà. Notre Plan Shift, notre plan stratégique mondial, est précisément axé sur les technologies qui permettent de répondre aux problèmes de connectivité du continent africain.

L'Afrique a différents besoins de connectivité, déterminants pour son développement économique et social. Son développement futur requiert par exemple une disponibilité accrue des services très haut débit. Le passage au numérique est un important catalyseur de changement, de développement et d'innovation. L'infrastructure du continent aura besoin de davantage de capacité pour offrir une connectivité très haut débit de haute qualité et fournir des services à valeur ajoutée aux utilisateurs finaux, tant dans les villes que dans les régions rurales.

Grâce aux investissements réalisés ces dernières années mais aussi grâce aux technologies sous-marines d'Alcatel-Lucent, l'Afrique est désormais reliée au reste du monde via des milliers de kilomètres de systèmes de réseaux sous-marins, dont la plupart ont été déployés par Alcatel-Lucent. Bon nombre de pays africains sont connectés aux dorsales terrestres et aux plateformes centrales de la région, mais la connectivité reste insuffisante dans les zones rurales. L'objectif de développement et la stratégie d'Alcatel-Lucent en Afrique resteront l'accélération du déploiement de réseaux d'accès très haut débit à travers le continent, en connectant les utilisateurs au moyen de technologies telles que le LTE, DSL, GPON, les small cells et le WiFi.

Dans le monde actuel, l'innovation ignore les frontières et les pays d'Afrique ne peuvent rester enclavés. La mondialisation de l'économie et la croissance du monde numérique ont amélioré les communications à travers le monde. En Afrique et partout ailleurs, Alcatel-Lucent coopère avec les gouvernements, les autorités réglementaires et les opérateurs, mais également avec les investisseurs pour promouvoir les investissements dans le secteur des télécommunications, notamment en faveur du développement de l'Internet et des technologies très haut débit.

Des projets publics et privés

Ces collaborations nous permettent d'identifier différents modèles d'exécution des programmes nationaux, en mettant en œuvre des projets publics-privés et en mettant à leur service notre leadership, ainsi que notre expérience et nos bonnes pratiques, acquises dans le monde entier. Nous pensons que le succès de la mise en œuvre et de l'exécution de la stratégie haut débit d'un gouvernement dépend en grande partie de la mobilisation d'un solide écosystème d'acteurs publics et privés. « Le haut débit pour tous » est un joli slogan marketing, mais « À chaque succès son réseau » est la réalité. Je suis convaincu que l'accès universel pour tous abolira les obstacles qui freinent l'amélioration de l'expérience haut débit mobile de l'utilisateur ; c'est l'unique moyen économique de répondre à la demande croissante en haut débit mobile. Le secteur et les fournisseurs de services changent. Ils ont besoin d'un fournisseur de technologies traditionnel mais aussi d'un partenaire innovant, qui les accompagnera dans la course pour façonner l'avenir : pour passer d'une innovation de pointe à des capacités opérationnelles prouvées et d'excellence, et répondre aux exigences des réseaux.

Michel Combes, directeur général, Alcatel-Lucent

L'Afrique est une région très spéciale pour moi. C'est un continent riche d'une longue histoire, riche par sa diversité de cultures et d'environnements, avec d'importants développements dans de nombreux pays, même s'ils ne se font pas toujours au même rythme, beaucoup de créativité et d'innovation. C'est un continent qui présente encore de nombreux défis et problèmes locaux, mais qui dispose d'un atout exceptionnel, plein d'énergie : sa population. Le succès et la prospérité du continent reposent sur ses habitants. ✆

Michel Combes
directeur général, Alcatel-Lucent

Optimal management of base stations in Africa

The systems cover all, or part, of site security, site hygiene, NOC supervision, and corrective and preventive maintenance in a wireless telephone system

BASE STATION (BS) MANAGEMENT is broad description of a range of activities and processes required at, around and in relation to a cell site to ensure the optimum performance of a network. It is about people, processes and tools, encompassing everything from site security, site hygiene and network operations centre (NOC) supervision, to corrective and preventive maintenance and much, much more. Tim Guest spoke to a couple of experts from leading infrastructure players Nokia Networks and Alcatel-Lucent.

In urban, semi-urban and rural Africa, standard base stations supporting today's 2G, 3G and 4G networks typically comprise a containerised shelter or outdoor cabinet together with a power source if off-grid, such as a diesel genset with external diesel tanks or solar panels if alternative energy systems are in place, together with air-con units, a perimeter fence, civil works such as a concrete foundation, as well as some form of security presence. Although sounds pretty standard in the world of cell sites, management of base stations is an all-too-important task, one that keeps the network running and the lines open.

BS management, 'from a vendor services perspective' is based around three things – people, processes and tools

According to Khalid Wasfi, MENA, Turkey and Etisalat GA cluster leader for managed services in Alcatel-Lucent's service organisation's EMEA Regional Business Centre, said that such an installation requires more than simply a tickle with a feather duster; it needs managing.

"Base station management is a broad term and might cover all, or part, of site security, site hygiene, NOC supervision, and corrective and preventive maintenance." He told *Communications Africa* that the responsibility for the task of base station management in Africa has evolved recently and while it can fall on the shoulders of either the mobile operators or outsourced infrastructure providers, this is changing. "Recently in Africa, it is trending that operators are selling their tower infrastructures to infrastructure providers and leasing back the sites, while infrastructure management remains with the providers."

He added that in remote regions of Africa where satellite-backhauled base stations and remote cell sites are deployed in some regions the base station management depends on who owns the infrastructure or to whom it is outsourced, but it is done in the same manner as any normal base station. "However, sometimes their SLAs are more relaxed than urban sites due to distance, non-paved roads, security concerns, depending on hostility of the region."

David Gaul, head of Central East and West Africa region, Nokia Networks, told *Communications Africa* that BS management, 'from a vendor services perspective' is based around three things — people, processes and tools. "People cover all the organisational aspects and competence needed to maintain, operate and optimise the network equipments. As the technology has evolved and the network is composed of multiple technologies, being installed by a multi-skilled organisation is required in the field."

He added that process is a crucial part of the base station management. "The processes simplify the activities of the people on the ground. A great focus is given to rationalise, standardise, centralise and automate these processes to achieve higher availability of the network, a better quality experience for the customer and finally, more efficiency."

"Tools represent an essential part of the management of a base station today. As the technology evolves, there are more and more activities that can be done remotely. This guarantees a faster response to network problems and centralisation of many activities in the NOC. Tools such as Nokia NetAct OSS, play a vital role when it comes to network management; it can integrate all network elements and even beyond, making network management easier for operators." Gaul added that different kinds of management functions can be handled by a powerful tool, such as NetAct monitoring sub-systems for fault management, configuration management, performance management, and because most

With much site sharing of towers or other infrastructure taking place across Africa, an external neutral player is taken on to run the field maintenance

of the network is heterogeneous, using multi-vendor and multi-technology, it is essential to integrate tools that can cover the largest spectrum of network equipment.

In relation to who conducts management activities, Gaul said that it depends on the operator strategy. "Some customers prefer keeping control to themselves, as it may be within their core competence area operating their own equipment, while others prefer to outsource to expert vendors such as ourselves."

He added that managed services operation by a supplier allows operators time to focus on their core activities and that the trend that Nokia Networks sees in the Middle East and Africa is more and more operators outsourcing their operation to vendors, mainly driven by the need to reduce and keep costs under control, improve quality and allow operators to transform their operations from network-centric to customer-centric operations.

Of BS management in remote regions of Africa where satellite-backhauled base stations and cell sites are deployed, Gaul said, "It actually doesn't make much difference as base station to controller will always have an O&M link established; the difference is perhaps satellite links do add some delay in the link, in the order of a few 100ms, and Base Station software can take care and compensate for that. From a service perspective it is related back to the point of having the right competence to manage a site requiring satellite links. The importance is to have visibility of these links in the NOC and a proper operational, escalation and governance model to guarantee a smooth and quick recovery in case of incident."

Of the alarms that can be triggered at the NOC and arise when something at the BS goes wrong, Wasfi said the electromechanical alarms i.e. external alarms, include: power source failures where a switch-over to different power sources is required; diesel levels, BTS door opening, temperature, flooding, fire alarm, rectifier alarm, all of which appear on the NOC OMC-R if external alarms are connected and well configured. He added that monitoring takes place via NOC element management systems and in some cases CCTV for security, as well as using other third party solutions to consolidate all the different technologies in a BTS into one platform, including alarm correlation. Wasfi painted a picture of a typical situation.

In remote regions of Africa where satellite-backhauled base stations and remote cell sites are deployed, the BS management depends on who owns the infrastructure or to whom it is outsourced

David Gaul, head of Central East and West Africa region, Nokia Networks, said that process is a crucial part of the base station management

"In a manual scenario, failure alarms or BTS out-of-service alarms appear on the NOC EMS (details might be available depending on extent of damage). A 24/7 NOC supervision team captures the alarm and dispatches the relevant field resource depending on the region/cluster, while providing all necessary info. As soon as the field force arrives on site they contact the NOC to authorise the site access. Once access is granted, intervention starts and regular updates are provided to the NOC, while they monitor the site during the intervention. The alarm is cleared and the BTS gets back to normal. The field force updates the NOC with the root cause, what intervention has been performed, and the NOC closes the ticket. In an automated scenario alarms are automatically captured via servers, such as Netcool, to perform alarm correlation, and an automatic ticket is opened on the trouble ticketing/remedy system. This, in turn, automatically dispatches the ticket to the field through integration with a work force management system while this solution is expensive it reduces human interaction and man-made mistakes, massively."

Gaul added a further take on a typical incident when an alarm is triggered.

"The O&M link will transfer the alarm to the NOC, where it will be noted, analysed and categorised into a major or minor alarm. Major alarms will then have teams immediately sent to site, or have a team access the site remotely, to analyse and fix the fault. With the introduction of advanced support mechanisms like self organising networks, many of these faults can be rectified automatically. Advanced applications, such as our Nokia Network 360, provide a single, simplified and integrated view of all the operational data from an operator's network elements. By cutting through the complexity, Network 360 helps operations personnel to quickly see the network status 'big picture' at a given point of time."

According to Gaul, due to advancement in SON, it is possible to expand networks faster and easier with features like BTS Plug & Play, BTS Auto Configuration. So, it is also important to have good IP transmission backhaul with lower latency, so that software upgrades/updates can take place faster.

"For example, our Nokia intelligent SON (iSON), the world's first end-to-end SON solution, covering both the radio and core networks, automates daily tasks according to an operator's preference, reaching higher levels of quality whilst freeing human resources for tasks that require deeper analysis. In addition, iSON helps them roll out networks fast and 'first-time-right' prevents unnecessary costs and delays, and its self-optimisation and self-healing capabilities ensure better network performance coupled with energy savings."

With much site sharing of towers or other infrastructure taking place across Africa, Gaul gave a final thought on its effect on the BS, saying he has witnessed in the region that often when a sharing infrastructure deal is concluded, an external neutral player is taken on to run the field maintenance. In some cases they decide to outsource this scope to local or global managed service provider. "The key aspect here is to have a transparent and inclusive operational and governance model to assure a smooth operation of the network." ✆

Tim Guest

Singtel delivers on continental satellite communication

With ST-3m, Asia's leading satellite operator Singtel now offers reliable and scalable connectivity for Africa

SINGTEL IS ASIA'S leading communications group and has more than 35 years of experience in the satellite business. Today, the company offers an unrivalled range of customised fixed and mobile satellite services to enterprise and maritime users, broadcasters, government agencies, non-governmental organisations (NGOs) and more.

As well as owning and operating satellites, Singtel also offers access to more than 30 satellites worldwide from its three teleports in Singapore, which were first established in 1971. The company also has partnerships with other teleports around the world, in order to enable comprehensive global coverage.

C-band with ST-3

ST-3 delivers high power C-band coverage across virtually all of Africa, the Middle East and South East Asia. With high performance east and west hemi beams, it provides powerful connectivity to support transponder leasing, VSATs, IP services, and much more. Its prime orbital location of 75ºE makes it particularly suitable for a diverse group of services ranging from cellular backhaul and enterprise data to primary distribution of HDTV channels.

A full service from Singtel

Singtel is more than just a satellite operator. It is a full telecoms service provider offering satellite capacity, submarine cable services and data centre facilities. Singtel can integrate all of those platforms to offer a full and customised suite of unique services to customers.

For example, it is already providing some clients in Africa's mining sector with complete end-to-end services that include satellite links, connectivity to data centres, the internet and private MPLS networks, as well as LAN integration and other managed services.

With its global offices around the world, prospective customers in major cities can come and meet Singtel in person to discuss their individual requirements for a tailored package of services.

And if all that wasn't enough, Singtel has a proven track record of maintaining 99.98 per cent availability of service. Singtel regularly upgrades its terrestrial infrastructure to ensure that its customers always enjoy high performance and reliability for their mission-critical applications, even in remote areas.

Satellite continues to play a vital role in connecting companies and communities to access areas of Africa. ST-3 offers you a cost effective way of capitalising on the technology's possibilities, as well as the unique opportunity to partner with Singtel, a company that has decades of unparalleled experience and expertise in the field.

Get in touch with Singtel today to find out more about how the company can help you to reach your target audiences. ✆

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ST-3, seen here at launch, delivers high power C band coverage in the African continent

CBNL makes the point-to-multipoint

With its VectaStar platform, Cambridge Broadband Networks has not only brought legacy infrastructure in the present, but helps telcos to prepare for the future

SPECIALISTS IN POINT-TO-MULTIPOINT (PMP) microwave technology serving customers in over 40 countries, offering turnkey solutions for high capacity, high quality, cost-effective network ownership and operation, Cambridge Broadband Networks (CBNL) continues to make gains amongst African operators.

Recently, the company helped Airtel Kenya to launch 3.75G services.

Kenya has become a high-growth technology market. Mobile phone penetration increased from 60 per cent in 2010 to over 77 per cent in 2013. The country now has over 30mn mobile subscribers. In particular, Nairobi requires advanced, sophisticated mobile and Internet services provision to support economic growth and open up new business opportunities. Connectivity is a key component in corporate growth, and Airtel is a key corporate entity with respect to the nation's need for reliable, high-grade connections. Its vision was and is serve Kenyan communities and commerce by efficiently scaling network capacity, coverage and service quality. How transmission and reception functions is patently critical to realising this vision.

Building a better telecoms business

As this decade began, Airtel Kenya was operating to a point-to-point (PTP) infrastructure strategy. However, by 2011, it was apparent to the operator's leadership that this strategy no longer supported a universal business case to invest in new services. Hence, the telco recognised a need for a more efficient backhaul and enterprise access strategy, compatible with its existing network infrastructure but also acting as a platform for the next generation of connectivity architectures. Airtel's management established a business case for evolution to inherently cost-efficient, technically sophisticated PMP microwave technology - and selected CBNL, which has earned a reputation as a provider of choice for PMP microwave backhaul and access solutions. Aside from Airtel Kenya, CBNL has worked with operators in 15 African countries to provide efficient carrier-grade networks, including Vodacom, Airtel, Safaricom, MTN and Neotel.

CBNL supported Airtel Kenya first in 2011 by providing network planning and project management to support the operator's immediate and long-term growth. During this first phase, CBNL used its VectaStar product to deploy high capacity sectors of backhaul coverage. This replaced legacy PTP equipment and provided upgraded throughput to existing mobile sites. VectaStar enabled the operator's technicians to connect cell sites in less than half a day so that it could quickly uplift capacity and connect new areas with 3G services.

VectaStar was widely deployed across Nairobi, enabling Airtel Kenya to deliver carrier-grade infrastructure to support the launch of its 3.75G network in 2012.

Chandra Tiwari, network director at Airtel Kenya, said of the deployment, "VectaStar is a cost effective solution for our mobile backhaul and enterprise access needs, and this has enabled us to invest heavily in our services to business and the public. This supported our launch of 3.75G and helped us serve more businesses across Nairobi with fast and reliable connectivity."

High-capacity backhaul was fundamental to the success of Airtel Kenya's 3.75G services, whose customers gained access to high-speed mobile broadband on their Internet-enabled devices.

By 2013 Airtel Kenya was fully utilising CBNL's VectaStar infrastructure by deploying additional connectivity to businesses. It was also utilising spare capacity in the backhaul network to maximise spectrum usage to guarantee quality of service to match the requirements of businesses in the Kenyan capital.

A portfolio for enhanced performance

The VectaStar portfolio has been developed and refined over the years, as CBNL research has enabled it to deliver higher performance at greater cost-efficiency. Recent developments have included the VectaStar Gigabit and VectaStar Metro wideband products, doubling platform capacity to 600Mb/s. These products, in particular, offer operators the possibility to perform better, to meet the increased data demands typical of advanced architectures built to run LTE or 4G, which are characterised by faster and bigger mobile connections and multimedia services. The deployment of technologies such as those that enable M2M are also a key factor, as high-speed wireless data transmission and reception place increasing pressure on operators to provide extra capacity and work with equipment that can handle high data flows as easily relatively cheaply.

LTE presents new challenges in this arena, as it becomes adopted more widely on the continent. Lionel Chmilewsky, chief executive officer, CBNL, sees operators facing a clear business case for enhanced network capacity to enable next-generation mobile devices and mobile services. He understands well that one of the key drivers for LTE deployment is consumer demand for data in territories historically characterised by the absence of fixed line infrastructure and currently characterised by the need for enhanced communications services. Logically underpinning such demand in more advanced African nations is socio-economic development, more industry and increased prosperity. An additional factor is support for the socio-economic benefits of advanced connectivity from governments.

The backhaul technology offered by CBNL enables more profitable business models to be created. Proven through deployment at operators such as Airtel Kenya, CBNL's VectaStar portfolio makes it possible for operators to build a converged backhaul network, to instill network innovations such as fixed enterprise access services alongside LTE connectivity, efficiently using backhaul and spectrum to improve mobile speeds and services, whilst also ensuring competitive pricing and greater profitability. ✆

Bands and bandwidth for screens and services

Africa's satellite revolution is coming of age as public and private sector entities prepare for the transition to digital broadcasting

THE BOOM IN satellite communications throughout Africa, which began a few years ago, looks set to continue. In 2014, there was a doubling of satellite TV channels in Africa and according to Viewsat, the broadcast and transmission operator, there are now more than 1,500 TV channels broadcast via satellite over Africa. African TV channels are also expanding their footprint outside of Africa to increase their audience. Viewsat supports more than 70 African TV channels, which serve about 10 to 15mn African TV households. Channels are mostly in the entertainment and religious segments. In April 2013, GOD TV, the global Christian media channel, partnered with ViewSat to provide specialised gospel and Christian messaging to the sub-Saharan region, by tapping into ViewSat's capacity on the Intelsat 20 Ku Band platform. The platform serves the African DTH market with approximately 60mn viewers. ViewSat also provides broadcast services to BOSTV, the first entertainment channel operating from Zimbabwe.

Satellites to screens

Arthur Bastings, executive vice-president for Africa at Millicom, has predicted that Africa's telecoms revolution will gather pace this year. "Homegrown solutions will encourage digital take-up. Industry players are acknowledging this demand by providing and producing local music, such as Africa Music Rights, and other entertainment services," he said. Second screens are becoming more common as Internet users access multiple devices at the same time. "The Chinese mobile app WeChat has taken advantage of the trend by partnering with local satellite television providers to encourage second screen integration with TV programmes, starting with the local reality TV show Big Brother Mzansi," he added.

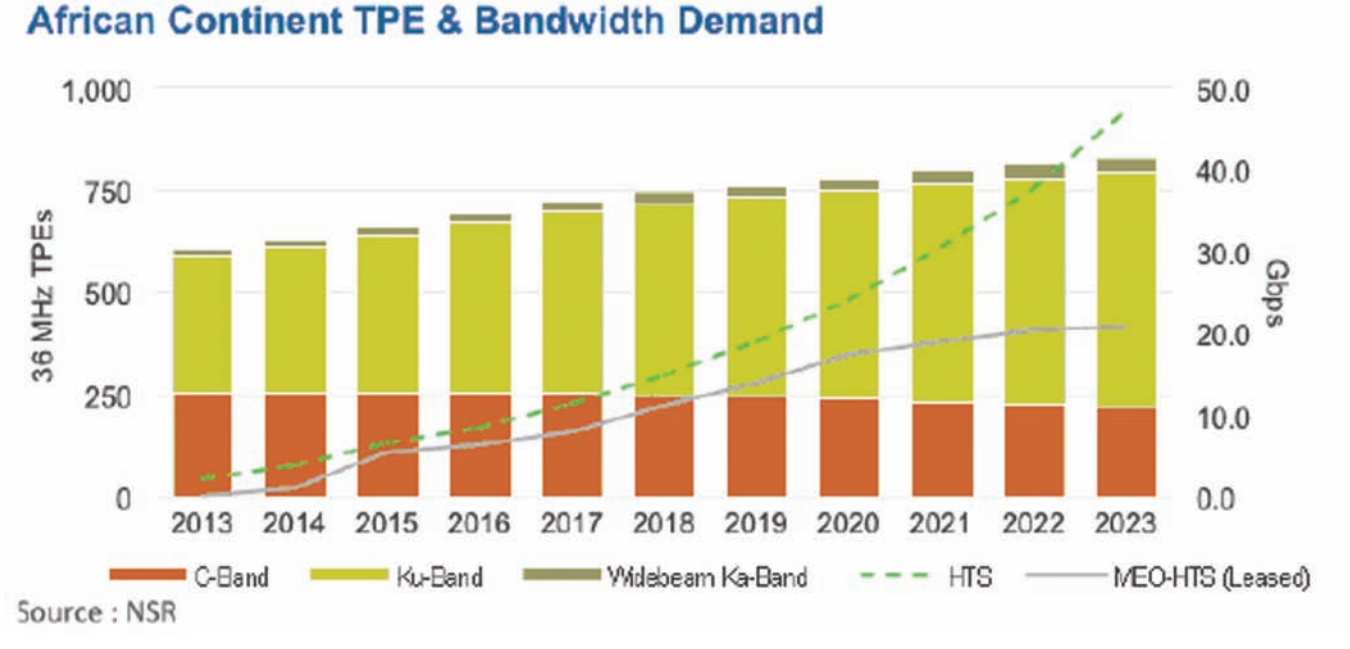
Arthur Bastings, executive vice president of Millicom has stated that the African telecoms revolution will gather pace this year

India's Airtel Africa is also expanding into the continent. At the end of 2014, it partnered with Dubai-based mobile satellite service provider Thuraya to launch its products and services in 12 African countries. Its satellite phones and IP+ broadband terminals are available to Airtel's customers in Congo-Brazzaville, DR Congo Gabon, Ghana, Kenya and Zambia. The company plans to further expand into its remaining African markets eventually. Andre Beyers, chief marketing officer at Airtel Africa said, "The collaboration spearheads the convergence between satellite and mobile communications, which addresses the growing demand for communications technology in Africa."

Dialogue on analogue and digital

Elsewhere in Africa, Angola announced that it plans to launch its first communications satellite Angosat 1 in 2017. The US$403mn satellite, which began construction in November 2013, will have a lifetime of 15 years and is being built by the Russian consortium Rocket Space Corporation Energiya (RSC), Telecom-Projeto 5 and Rosoboronexport companies. The satellite will provide Angola with communications and digital terrestrial services, replacing the current analogue system.

The move to digital broadcasting from analogue presents satellite with its most important opportunity in Africa's telecoms sector to date. At the end of December 2014, West African media and technology



A graph depicting growth and bandwidth demand in Africa

experts gathered in Côte d'Ivoire under the auspices of Eutelsat Communications and African Telecommunications Union (ATU) to discuss Africa's digital transition. The conference, which brought together ITU and World Bank experts in addition to ICT ministers, broadcasters, regulators, policy-makers and finance institutions from 15 countries in the region, identified multiple opportunities such as improving signal quality and expanding the diversity of content for citizens; extending viewer access to broadcasting services by leveraging satellite and terrestrial platforms and stimulating employment and wealth by supporting locally-produced content and content developers in West Africa.

While growth in Africa's satellite telecoms market seems assured, some observers caution that similar optimism in the past earlier proved to be unfounded. In a recent study, senior NSR analysts Prashant Butani and Blaine Curcio have stated that twenty years ago, Africa's telecoms sector was also trumpeted as a market with enormous potential. "All the fundamentals for a satellite telecom revolution were there – enormous land area, poor ground infrastructure, and a population of more than one billion," they said. In addition, Africa had what is sometimes known as the "Mexico phenomenon," i.e., more homes in sub-Saharan Africa have TVs than do refrigerators. This increasingly common developing world trend was first noted in Mexico a number of years ago. And yet, up to this point, it has consistently disappointed.

C-band and Ku-band for the continent

NSR now believes that the continent reach is finally reaching its full potential and is starting to demand significant quantities of capacity for a number of applications. "Demand growth in Africa will have several main drivers," NSR said. For traditional FSS Capacity, Ku band will be the mainstay, with well over 200 TPEs of new demand coming online by 2023. This will be driven in large part by video distribution, which will account for nearly half of all Ku-band TPE growth. NSR also expects DTH to provide solid demand growth as a secondary application.

And although NSR expects to eventually see a contraction in both C-band and Ku-band, as fill rates remain below 50 per cent and 65 per cent respectively, for now broadcasting C-band looks likely to remain the cornerstone of African socio-economic growth.

Africa is reaching its full potential in satellite usage and coverage, and is starting to demand significant quantities of capacity for several applications.

Intelsat 905 provides the C-band capacity to Africa that recently beamed the 2014 FIFA World Cup to millions of homes throughout Africa. And many communities in Africa rely on C-band communications to support business communications, telemedicine, e-learning, disaster recovery and getting broadcast content to the region's radio and TV service providers.

In Nigeria, the C-band spectrum is regarded as pivotal to the country's lucrative television and film industries. PwC expects Nigeria's entertainment and media industry to continue to grow with revenues estimated to reach approximately US$8.5bn by 2018.

A recent Euroconsult assessment of C-band usage in African countries shows that the number of TV channels distributed in C-band in sub-Saharan Africa reached around 370 in 2013, compared to around 150 in 2005. This corresponds to a 12 per cent CAGR over the eight-year period. The study added that if the last three years are taken into account, then the number of C-band channels increased by an annual average rate of 34 per cent.

C-band's ability to resist atmospheric interference such as rain, known as 'rain fade', and the availability of wide beams is said to make

PwC expects Nigeria's media and entertainment industry revenues to reach US$8.5bn by 2018.

it unequalled in terms of highly efficient coverage and reliability, as well as demonstrating why it is so suited to overcome the climatic and geographic challenges of the region. Euroconsult estimates that if C-band usage for broadcast in Africa was terminated, more than 35mn households or about 140mn individuals in Africa would be directly impacted in the short-term. In fact, a larger number of viewers would be affected because the usual access to TV in Africa is two to three times higher than the number of TV owners.

The benefits of broadband to broadcasting

But snapping at the heels of satellite communications in Africa is the rise of broadband Internet, which is allowing the spread of Internet TV. Indeed, some forecasters predict that as fast as satellite TV has grown in Africa it will soon be making way for Internet TV.

In the next 10 years, consumers are expected to have access to a wide array of on-demand content. In South Africa, on-demand television delivered over the Internet is changing the broadcasting industry more fundamentally than moves by communications regulator Icasa to license new terrestrial and satellite free-to-air and subscription broadcasters.

The first attempts by South African media companies to take advantage of broadband to deliver these on-demand services are already being made. Times Media Group has now entered the race with Vidi. Its catalogue is currently narrow but that is expected to change. DStv Digital Media CEO John Kotsaftis is involved in a project to open a data pipe on MultiChoice's top-end decoder, the Explora. This will pave the way for consumers to be able to watch video-on-demand (VOD) services via the Internet.

Explora users already have access to offline on-demand services called Catch Up and BoxOffice. And as of last November, they are now able to buy a Wi-Fi device — the DStv Wi-Fi Connector — that they plug into the Ethernet port on their decoders. This provides Internet access via users' home broadband networks. Consumers can store up to 25 VOD titles downloaded from the Internet, but the number of titles available in the cloud will be far larger.

MultiChoice plans to offer streaming from Q2 2015 in the hope that by opening its decoder in this way, it would push back the advance of VOD competitors. However, a growing number of consumers are discovering that a broadband-connected PC makes more sense as the centrepiece technology in the living room than a proprietary box.

Whether or not broadband TV lives up to its promise in Africa, it is clear that such is the explosion in demand for media on the continent that it will be able to accommodate simultaneous rapid growth in the internet as well as continued growth in satellite communications. Indeed, the likelihood is that growth in both will be complimentary, which will provide Africa's consumers with a much better choice of media content than they currently enjoy at the moment. ✆

Nnamdi Anyadike

How AMOS-Spacecom sees the satellite industry in Africa

With the launch of AMOS-6 scheduled in MENA later this year, Spacecom discusses the vibrant African market and the various plans the company has in store for the region

SPACECOM, THE OPERATOR of the AMOS satellite fleet stated at AfricaCom2014 that the AMOS-6 is scheduled to be launched in 2015 to 4°W orbital position, offer 39 Ku-band segments and 24 Ka-band spot beams and provide a wide array of services in MENA. The satellite will be fitted with numerous new technologies including electronic propulsion capabilities to save on weight and cost.

Eyal Copitt, senior vice president of sales in Africa, Asia and marketing at Spacecom, said, "Africa's satellite communication market is expanding both in broadcast and broadband. Its a competitive market and our AMOS-5 satellite at the 17°E orbital position has a pan-African C-band and three regional Ku-bands to provide superior services to Africa."

Eyal Copitt, senior vice president of sales in Africa, Asia and marketing at Spacecom

"The satellite industry's core drivers in Africa are broadcast, broadband and data communications. Broadcast is being driven by increasing numbers of HD channels as well as local/regional broadcasters. We are seeing the spread of digital broadcast in East Africa and also expect to see this continue in other areas. Africa's outlying and rural regions will also generate growth for broadcasters," added Copitt.

"Broadband, primarily due to mobile phone data usage, is a big driver in the market. In urban areas, as well as in rural and outlying regions, people are using more services and applications connected to broadband and data. Backhaul is done by satellite and AMOS-5 is seeing greater interest and business on this level. With mobile telephony adding further broadband capabilities and new devices on a weekly basis, this is an exciting market.

"Data communications is growing in many areas in Africa due to ripening economic conditions. Data service providers are enticing corporations and far-flung business to use satellite, as it represents the shortest time to market when entering new coverage areas. With VSAT applications growing and e-government projects moving forward, data communications is a solid market," he said.

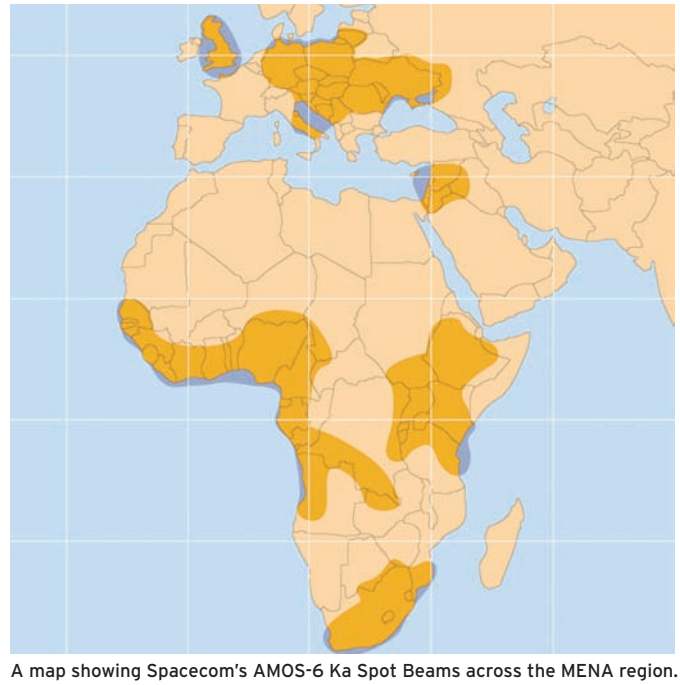
Rural Africa will remain an important market. Satellite services are the best and primary solutions for communication needs.

Commenting on the pressing threat to development of satellite communications in Africa, Coppit added, "The continent remains variegated, in which growth is characterised via region or by nation state. Spacecom, since its founding, has specialised in creating business models to succeed in developing regions. In Africa, we have set our sights on various regions around the continent and move ahead to further the sitcom business. Since the launch of AMOS-5, we have been providing capacity and enhancing business opportunities."

However, Copitt also stated that in areas with unrest or political instability, poor infrastructure and inefficient regulations, satcom growth was slower.

"Africa is a fast moving country and a competitive market with a great deal of opportunity. Satellite operators understand this and we all make use of methods to attract potential business growth and maintain our business activities in the continent. Spacecom maintains a healthy mix of business in broadcast, broadband and data communications. We see the markets for all these elements continuing to move forward either via the roll-out of digital TV in East Africa or an increase in mobile traffic that requires data communications. We see an increase in activity with DTH providers and also sports broadcasting. Currently, data communications is growing with MNCs and regional corporations requesting advanced VSAT services for their stores, branches and factories. This is true in every region on the continent," he said.

"Furthermore, by combining mobile devices with Wi-Fi or any other connection to the communication network, medical professionals can access information, forms and have conference calls with colleagues around the globe, using a cellular connection linked to a satellite, and



A map showing Spacecom's AMOS-6 Ka Spot Beams across the MENA region.

from there back down to another communication network. This enables faster work, improved capabilities for health treatment and understanding. This is the same way e-education networks can work on hybrid solutions too," he added.

"Spacecom has always positioned that more fibre is better for the satellite industry. With additional services reaching more of the population due to fibre, and with customers becoming more accustomed to improved and advanced services, overall demand for these services is growing. This includes to all areas including those only reached by satellite. We are pro-fibre and believe that AMOS-5's position and capacity to serve all of Africa is excellent. Fibre is no competition to satellite; rather we see it as a business accelerator."

There is no risk of over-supply in satellite-capacity. "Some satellite operators have claimed over-supply, but we have not found this the case. AMOS-5, launched in 2012, is specifically designed and built for the African market and is not a satellite that was moved from somewhere else to cover Africa. We are continuing to grow and generate increased capacity usage of the satellite. Our prime orbital position over Africa, commanding EIRP and service strength, enhance this growth. Other operators may be wary of the region but we are not. So much so, AMOS-6, scheduled for launch in 2015, is also being designed with KA Spot beams to cover Africa," said Copitt.

Commenting on if there would be a hybrid approach that uses fibre and satellite together, as was made with the recent Gilat Satcom announcement on how satcoms will evolve in Africa, Copitt said: "We assist our clients understand market trends and make empowered business decisions. Services based on fibre and satellite together are not new to us. In central and eastern Europe, we have worked with our partners as they added advanced services and triple play options. Some of these have been based on a fibre-satellite mix, so it is not surprising to see players in the African market take up the trend. The market is steady."

Copitt stated that rural Africa will remain a key market for major satcom service providers, and also for major African cities such as Cairo, Nairobi and Johannesburg.

Asked if rural Africa will always be a major market for satcom service providers, he replied, "Rural Africa will remain an important market for these services. More likely than not, satellite service is the best and primary solution for communications needs. People living in and around major cities such as Cairo, Nairobi, Johannesburg and Cape Town need communication services and satcom is the best and often the only reliable solution for them. So for the long term, satcom will be a primary provider of communications not only for rural but also for other regions throughout Africa." ✆

The interest in carrier ID

AS ONE OF the founding members of the Satellite Interference Reduction Group (IRG), SES has been instrumental in several interference mitigation initiatives. One initiative, which has created keen interest and importance in recent months, is carrier indentification (CID).

SES is actively involved in the development, promotion, and introduction of CID, through its leading role in the Satellite Interference Reduction Group and also the Space Data Association (SDA). A primary goal has been to make CID easy for uplinkers to implement and operate. To achieve this, satellite operators will develop procedures and systems to support CID on a global scale.

Decoding the identifier:

CID is a simple concept. Every transmitted carrier will have a unique ID which can be decoded by satellite operators. If a carrier is causing interference, the unique ID will be decoded to identify who is transmitting the interference.

A satellite operator will be able to decode the unique ID in the carrier, contact the uplinker causing the radio frequency interference (RFI), either directly or through the satellite operator that provides services to the uplinker causing the RFI, implement corrective action, and reduce the duration of service interruptions caused by the RFI. Satellite interference is an issue which can affect all satellite users albeit it is often reported that satellite interference only affects a minor number of services. However, for broadcasters, any disruption of service is not ideal. With broadcasters vying for eyeballs in the fiercely competitive video landscape and enterprise services seeking to minimise operational downtime, any disruption would impact the quality of service in the short term and increase customer churn in the long term.

Rapid action to reduce interference

The key benefits of CID include the rapid identification of interfering carriers, faster action to resolve interference, improved quality of service (QoS) for customers by significantly reducing the duration of RFI incidents. At the most recent edition of IBC, in 2014, SES was one of the companies lending its support to an informational CID tour hosted by the Satellite Interference Reduction Group. IRG led participants step-by-step through the process of CID, from transmission, through detection, to resolution. SES featured in the resolution part of the tour, where it explained how satellite operators resolve interference when it occurs and the tools that make the process more efficient and effective.

Through CID, every transmitted carrier will have a unique ID which can be decoded by satellite operators.

Chris Grogan, senior vice president of customer service delivery at SES, said, "Now that CID technology is readily available, ensuring widespread adoption and swift implementation is critical. This technology enables satellite operators to quickly identify an interference source and facilitate the fast resolution to interference events, thereby improving the integrity of satellite based services and increasing the quality of service for all customers."

SATIS serves broadcasters with technologically advanced equipment

The highlights of a key event for the broadcast community, focussed squarely on affordable solutions for smaller firms

FOR BROADCASTERS WITH access to a corporate travel budget, the mid-September IBC show in Amsterdam is the big annual industry conference and exhibition.

For the staff of video and audio post-production companies, there is also the key equivalent in the form of SATIS. This year's event overlapped with the Tonmeistertagung show in Cologne and the Inter BEE broadcast equipment exhibition in Tokyo; this is an interesting challenge for exhibitors with a presence at all three.

After gap years at the Halle Freyssinet during 2011 and 2012, SATIS returned to its traditional Porte de Versailles venue in 2013 and again this year. Located on the Périphérique, Porte de Versaille is further out from the city centre but a more pleasant exhibition environment once you emerge from the Metro.

Having attended every IBC from 1968 onward, and every US NAB Convention from 1985, I have long appreciated the value of broadcast trade shows as industry thermometers. The key message emerging from SATIS 2014 echoed that from the international shows – advances in display manufacturing are allowing large-dimension retina-quality video screens to be produced at home-consumer prices. At the other end of the scale, similar progress in nanotechnology now allows 512 gigabytes of data to be stored in a postage-stamp-sized Secure Digital memory card.

Advances in display manufacturing are allowing large-dimension retina-quality video screens to be produced at home-consumer prices.

What this does NOT mean is that programme producers and broadcasters will have to replace their 1920 x 1080 pixel HD cameras and editors with 3840 x 2160 pixel ultra-HD until such time as their existing kit wears out. UHD is nominally 4,000 pixels wide and practically retina quality (meaning the individual pixels are almost invisibly small) at screens sizes up to 55 inches diagonal. 5,000 pixel width cameras and displays are already on the market, notably in the latest-generation 27-inch Apple iMac. 8,000 pixel width displays are in development to support NHK-Japan's proposed Super Hi-Vision and there is no reason to assume that will be the last word in video display resolution.

One of the most impressive features of latest-generation UHD TV receivers is the very high quality of their internal resolution upconverters. SD to HD looks pretty good on a UHD screen. HD to UHD looks even better. The higher the source resolution, the easier the upconversion process becomes within the limits of normal domestic video screen sizes. Broadcasting is now essentially resolution independent in a world where today's HD content is viewed on devices as disparate as mobile phones and elephantine domestic television receivers.

Advancing television beyond IMAX

SATIS exhibitor Videmus stole the show for me through its ability to advance 4K digital video production far beyond even the high visual impact of IMAX. The concept is to deploy multiple 4K video projectors, each sourcing from its own hard-disk drive, to create a potentially unlimited variety of stage or auditorium sets. A large-scale Videmus production with 41 projectors is effectively 11,000 x 2,200 pixels. The company's website shows various examples such as *www.videmus.fr/carriere.html*

Visitors participate in Satis 2014, held in Paris, France in November.

On a similar theme but much smaller scale, TVOne exhibited its C3-540 Coriomaster multiscreen interface. Each C3-540 allows up to four independent video walls to be created and controlled using TVOne's editing software. Images can be rotated to any angle in 1 degree increments. The system is designed to handle standard-definition and 1920 x 1080 pixel HD sources. This technology is commonly used to enliven studio backdrops.

Production infrastructure

Blackmagic Design exhibited the latest version (6.0) is its Videohub router. This includes 6G-SDI technology so operators can simultaneously connect and route any combination of SD, HD and UHD video. Control is via scroll-knob and button entry with customisable source labels over incoming video onto an integral LCD screen. When any input or output is selected, the relevant video images are displayed live on the LCD.

JVC previewed its upcoming 4KCAM range of UHD camcorders, scheduled for introduction in 2015. These consist of the GY-LS300, GY-HM200 and GY-HM170. The GY-LS300 is equipped with a 4K Super 35mm CMOS sensor and accepts a wide range of cinema and photographic lenses and adapters. It records to Secure Digital solid-state memory in a variety of image formats including 4K Ultra HD, 4:2:2 sampled HD, SD and web smaller proxy formats (960 x 540 and 480 x 270 pixels). Recordings are made using the Apple Quicktime (.MOV) file format and are compatible with many popular editing systems. Also shown was the GW-SP100 remote 4K head.

Multicam Systems showed its Multicam Studio which allows touch-screen selection of multiple sources including live events from up to four SD or HD cameras. The incoming camera feeds can be combined with other sources. The devise is designed for use by a single operator and includes an assignable joystick camera controller. Automation facilities are also provided.

FilmLight demonstrated how colour grading can be used to both improve the appearance and speed up the production of television programme production. "The demand for better looking serial episodic and features for television was often overlooked for all but big budget productions," said Mark Burton of FilmLight. "Our solution puts the Baselight grading toolset and renderer in key collaborative post-production systems through our Baselight Editions plugins. The pipeline allows grading metadata to be quickly exchanged between colourists, editors and VFX artists, with everybody looking at the same grade and the same colour tools available. The result is a great looking programme, finished in significantly less time than has been possible until now."

The demonstration included Baselight for Avid, a Baselight Editions plugin, which puts a colour grading toolset and renderer inside an Avid Media Composer or Avid Symphony. This enables real-time collaboration between editor and colourist through the exchange of Baselight grading metadata. Editors see the latest grade applied to the cut and can make their own adjustments, which can then be passed back to the grading suite, again as metadata, or rendered out on Media Composer as the final deliverable.

Forbidden Technologies promoted the latest version of its Forscene cloud video platform which offers new capabilities, a new interface and a new content management system. "Since we introduced Forscene in 2004, the technology has evolved to be much more than a video-editing system but the interface hasn't kept pace," said CEO Stephen Streater. Users can now upload both low and high resolution proxies of their content to the Forscene cloud and swap between them dynamically while working. They can use the low-resolution proxy over slower connections and then swap to view the high-resolution version when they need greater clarity or more detail. Edits are available for both review and approval/rejection from within the interface. Tasks are communicated via e-mail with MPEG attachments so reviewers don't have to be Forscene users to be able to participate in the process. Forscene users with a synchronised tablet account will be able to review, comment, approve, or reject edits in the Forscene app while offline, synching automatically when an internet connection becomes available. Other new Forscene features include the ability to publish with burnt-in timecode or any other metadata; expanded multicam logging to support up to 18 cameras simultaneously; and increased support for different formats that enables functions such as editing MXF files during ingest.

French broadcast equipment distributor PB-Europe exhibited the OneVideo Minicaster, a mobile hardware-based battery-powered H.264 live encoder which converts any compatible camera or video source signal into an IP based live stream and delivers it via landline, wifi, satellite or cellular networks. Suggested applications include mobile news gathering and behind-the-scenes reports from major events. It can simultaneously record on a Secure Digital card. Streaming settings can be changed via remote access and are also editable on the device itself.

Also shown by PB-Europe was the Ruige TL1730HDA-CO slimline picture monitor, designed for easy transportation as carry-on flight luggage. Setting up or packing down the TL1730HDA-CO is claimed to take less than one minute. All controls are positioned at the front of the unit, rotating upwards from the front of the external case at the push of a single button. Total case dimensions are 528 x 355 x 45 mm and the weight is approximately 7.5 kg. The TL1730HDA-CO has a 1,920 x 1,080 resolution 17.3-inch screen based on a 10-bit IPS panel with a wide 178 degree horizontal and vertical viewing angle. Picture quality parameters include 300 cd/m² image brightness, 600:1 contrast ratio, 3 millisecond response time and 0.1989 x 0.1989 mm dot pitch. The display mode can be switched between 16:9 and 4:3. The monitor is equipped with 3G/HD/SD-SDI, HDMI and composite inputs plus a dual channel analogue audio input and a red/green tally feed. These are augmented by 3G/HD/SD-SDI and composite video outputs plus a SDI-de-embedded audio output, 3.5 mm headphone feed and integral 2 watt loudspeakers. The TL1730HDA-CO can be operated for up to six hours from a 130 watt-hour standard broadcast lithium battery, connected via V mount or Gold mount battery plate. A universal mains adapter is provided.

Vitec has added a Zixi Feeder and Receiver to its range of portable encoders and decoders including the MGW Premium, MGW Nano, MGW Nano TOUGH and MGW Pico. These provide H.264 HD and SD compression at various data rates, and low-delay encoding and decoding. The Zixi platform allows IP delivery of broadcast quality video and audio over standard internet connections.

Audio

Nagra displayed its new Nagra Seven solid-state stereo audio recorder, which has been designed as a successor to the Nagra LB, ARES-C, ARES-BB+ and Nagra V. Optional ISDN or SMPTE/EBU timecode boards adapt it to either the radio or film/television markets. Optional wifi / 3G, internal editor and audio compression are also available. Recording is to removable Micro SD flash memory card at 44.1 up to 192 kHz sampling frequency. The inputs are equipped with traditional Nagra microphone preamplifiers for dynamic and +48 volt phantom-powered microphones and offer a range of switchable sensitivities to accommodate all common microphones. AES-42 microphones can also be used as the recorder can supply the necessary 10 volt DC supply from the AES input. The analogue line input will accept up to +24 dB allowing connection to a standard audio mixer in the field.

Co-exhibiting with its French master reseller Areitec, NTP Technology demonstrated the latest version of its AX32 analog/digital/analog converter plus the DX32 digital audio matrix. Full control of both units is now possible via the Avid EUCON 3 protocol directly from Avid Artist, S6, MC Pro and 5-MC control surfaces. The AX32 is a successor to the 24-channel AX24. With its optional microphone preamplifiers, it is claimed to be the quietest and most transparent studio front end on the professional audio market. The latest version of the AX32 delivers improved efficiency both in live recording and post-production. Monitor control is made via NTP's DADman software using the Avid EUCON protocol. The software can be pre-configured by the user or administrator to allow a variety of input and output combinations.

Solid State Logic promoted its new SSL Live.L300 audio production console. The L300 is physically smaller than the L500 but can handle large scale productions with up to 568 input/outputs, 128 processing paths (96 full, 32 dry), a 32 x 36 matrix, 36 VCA's, and 48 FX slots. Both the L300 and the established L500 now come with version 2.5 software. A new Follow Mode allows the Select, Solo and unique Query function buttons found on the Live console Fader Tiles to be linked together in any configuration an engineer might require. Each of the three Tile buttons can be programmed to 'follow' any of the other buttons on a per channel type basis. Input channel, Auxiliary and Stem Group mix bus operation of the buttons can be linked in various user defined ways. A Tempo Link feature adds the ability to link and control the Tap Tempo of any Delay effects loaded into the L500 and L300's Effects Racks. Mix Bus Copy allows the contributions of entire mix buses to be copied across the Live console's flexible bus structure.

SATIS returns to the Porte de Versailles, Paris, November 17-19 2015. Perhaps by that time, wristwatch-sized mobile phones will have made a significant impact on the market. If so, they will create an interesting challenge from a television-display perspective. ✆

David Kirk

Avanti's 'Connected Education' service

ACCORDING TO **UNESCO Institute for Statistics (UIS)**, the population of school age children in Sub-Saharan Africa will reach 224mn in 2015. Launched at AfricaCom, **Avanti**'s Connected Education solution delivers Internet-enabled learning to thousands of children in Africa for less than 10p per child, per day

Avanti's new education service combines technology with teaching skills to address the problem of poor educational outcomes. Connected Education is based on three key principles:

1. Connect: In the 21st century no child's education is complete without the Internet.
2. Develop: Every child gets the education they deserve.
3. Sustain: Communities can generate revenue to keep education initiatives running for years to come.

Avanti has deployed a number of education services in Africa, most recently with Project iMlango in Kenya. Avanti leads a consortium in partnership with the UK's Department for International Development (DFID) to reach 100,000 children, a quarter of whom are marginalised girls.

At the heart of Project iMlango sits a dynamic Internet learning platform, accessed through high-speed satellite connectivity, where partners provide students with interactive educational content. The large-scale project is demonstrating how Avanti's integrated approach creates a positive and lasting impact on young students and their communities.

Paul Feenan, director of Avanti Government Services, commented, "Our 'Connect-Develop-Sustain' strategy uniquely addresses the numerous challenges facing decision makers within the Education sector across Africa. Our leading Ka-band satellite technology provides a resilient, high-speed and quick-to-deploy solution beyond fibre, capable of meeting long-term socio-economic goals for African education."

Genband offers platform-as-a-service, WebRTC, carrier wi-fi and cloud solutions

REAL TIME COMMUNICATIONS software solutions developper **Genband** showcased key components of its comprehensive portfolio at the 17th Annual AfricaCom Conference & Expo in Cape Town, South Africa. The solutions on display included:

Platform-as-a-service: Genband recently introduced Kandy, a disruptive subscription-based real time communications software development platform, designed to help companies of all types and sizes from developers to communications service providers easily embed a full suite of voice, video, chat, screen sharing and collaboration capabilities into their existing business, web and mobile applications.

SPiDR WebRTC gateway solution: SPiDR allows service providers to leverage advanced communications services including video, voice, presence, shared address books, call history, instant messaging and collaboration tools that are embedded natively into web applications.

Carrier Wi-Fi: The recently introduced QUANTiX Wireless Access Gateway allows communications service providers to cost-effectively enhance the user experience through improved coverage, faster data speeds and seamless roaming through indoor or outdoor small cell and carrier Wi-Fi deployments.

Cloud services: NUViA is a comprehensive, white-label Unified Communications (UC) offering that service providers, enterprise and channel partners can brand and take to market. It includes a suite of market-proven unified multimedia conferencing and collaboration, intelligent messaging, mobility, high definition voice over IP, and desktop integration solutions.

Mblox invests in the growing African communications market

A SPECIALIST IN application-to-person (A2P) text messaging, **Mblox** has identified Africa as a strategic growth region for the company, stemming from its significant rise in SMS traffic. A recent **Portio Research** report recognised a 45 per cent increase in SMS traffic in 2013, over full-year 2012 totals, illustrating the potential for in-market growth of mobile messaging as the company expands its global reach.

Mblox has been active in the South African market since the company's inception, developing next-generation engagement strategies with rich push and SMS solutions for the region's brands and enterprises. However, Mblox sharpened its focus on the growing African market with the opening of a Cape Town office in spring 2013.

The company's recent acquisition of **CardBoardFish** positions Mblox for further growth in the region, offering a highly automated A2P messaging platform with industry-leading security, reliability and service levels. The platform has provided legacy Mblox customers with a host of new features, even greater resilience and enhanced usability.

Mblox offers a highly automated A2P messaging platform (Photo: Ken Banks)

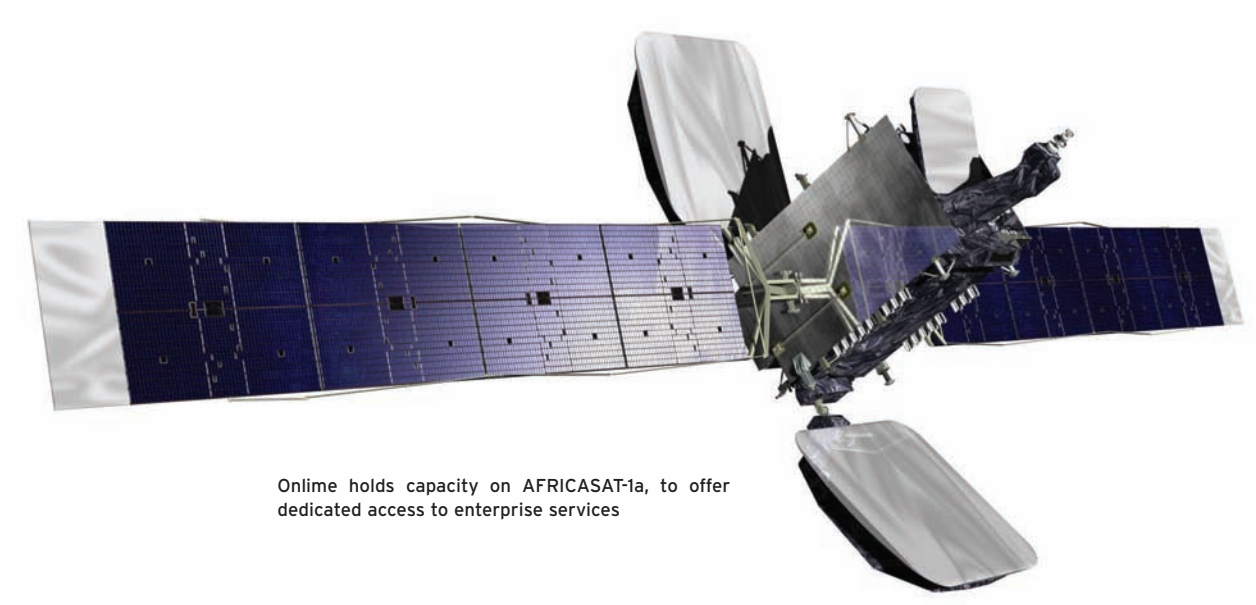
As the global messaging leader, Mblox is well positioned to leverage its platform and expertise on behalf of companies in all areas of the world. Mblox's global reach is underscored by its recent acquisitions of UK-based CardBoardFish and Zoove, along with the 2014 opening of its Japanese office.

Mblox joined digital and mobile experts at AfricaCom 2014, Africa's premiere technology event, which took place in Cape Town, South Africa in November.

"Mblox continues to identify growth opportunities in markets around the world, driving the industry forward through our platform enhancements, capabilities expansion and increases to our customer base," said Mblox CEO Tom Cotney. "Mblox has already established a strong African foot print. AfricaCom provides an opportunity to increase the region's understanding of mobile opportunities and deepen the relationships we have made."

"Mblox continues to identify growth opportunities in markets around the world, driving the industry forward through our platform enhancements, capabilities expansion and increases to our customer base" - Mblox CEO Tom Cotney

Secure and reliable satellite and terrestrial services from Onlime



Onlime holds capacity on AFRICASAT-1a, to offer dedicated access to enterprise services

THERE IS AN increasingly critical need for reliable connectivity and support. **Onlime** brings together solid technical expertise with the extensive emerging market experience to deliver high quality, secure, reliable business communications for enterprise customers. Its teleport in Germany offers access to over 200 geostationary satellites, and so offers extensive coverage across Africa as well as the rest of the globe. Onlime provides, also, dedicated access to a growing network of international fibre cables.

The teleport is a true technical hub - a fully-manned disaster recovery facility, with a help desk running at all times. It is a dedicated team of professionals, working at the company's facilities in Germany, the United Kingdom, India, Sierra Leone, Angola, DR Congo, South Africa and the United Arad Emirates - providing quality connectivity to enterprise, government, military, oil & gas, mining, banking entities and non-governmental organisations (NGO), amongst other customer groups.

Business communications capacity

Onlime provides enterprise connectivity in over 40 countries. The team that forms the backbone of the company has considerable experience in the business of enterprise communications in 26 African territories. And the company itself has invested effectively in infrastructure in Africa, in particular, with sales and support offices in a number of strategic locations, and a comprehensive network of qualified engineers. Principally, Onlime serves African customers in: Kenya, Democratic Republic of Congo, Malawi, Sierra Leone, Angola, Gabon, Mali, Somalia, Central African Republic, Tanzania, Mozambique, Uganda, Congo Republic, Nigeria, Cote d'Ivoire, and Zimbabwe.

The most interesting aspect of the company's operations is its comprehensive approach to industry. Onlime is prepared to support any sector operations, where it can do with quality and reliability as the watch words.

Most recently, for example, at Connectivity 2015 in London, Onlime's CEO, Paul Ziegler, represented the company as a panellist on 'Mining and Remote Resource Extraction', speaking on how mining -as an inherently remote operation - needs need quality connections to satellite and reliable network infrastructure to enable satellite-terrestrial hybrid connectivity operations, which are vital to the growth and cost-effectiveness of mining businesses.

Prior to this, Mr Ziegler had contributed to debate at IBC 2014, a key broadcast industry event, with his views on The Changing Satellite-Terrestrial Mix for Service Providers', as the company launched services on Yamal. It was at IBC that Onlime's CEO sealed a deal with Russian satellite operator **Gazprom Space Systems (GSS)** to take capacity on Yamal-402 satellite, to increase Ku offering addressing a growing demand in Sub-Saharan Africa.

Onlime has full Ku and C-Band satellite coverage for very small aperture terminal (VSAT) services over the African continent, providing reliable business communications solutions to the enterprise market, whether directly through one of its own offices or via its substantial network of partners and VSAT resellers. The extent of coverage, the reliability and the projected longevity of Yamal-402 makes it a good fit for penetration into many markets, allowing for VSAT terminals to be deployed across Africa. As the contract was signed, GSS director general Dmitry Sevastiyanov spoke of the use of Yamal-402 capacity over Africa to enable the provision of services in many African countries, and affirmed that GSS intended to develop its working relationship with Onlime in Africa and the Middle East. For his part, Mr Ziegler spoke of the possibilities for ongoing business opportunities with respect to the enterprise market in African territories, which includes deployment and utilisation of satellite and fibre-based network infrastructure and solutions - including multiprotocol label switching (MPLS), voice over IP (VoIP) and other wireless technologies. He said, "The addition of Yamal-402 is part of network strategy to be able to offer seamless coverage across the African continent to address the needs of the market. We are proud of our partnership with Gazprom and look forward to growing the relationship further."

Shortly before Mr Ziegler committed Onlime to working with GSS, he had already expanded Onlime's capacity on AFRICASAT-1a, which is operated by **MEASAT Satellite Systems**. The additional transponder capacity secured allows Onlime to continue to respond to opportunities and so generate revenue growth in Africa.

He stated that Onlime is focused on providing customers with access to communications services wherever they are based, "ensuring that our customers have access to comprehensive, flexible and reliable business communications services both through our extensive satellite coverage...and through our dedicated access to a growing network of fibre connectivity and a range of the latest technology platforms."

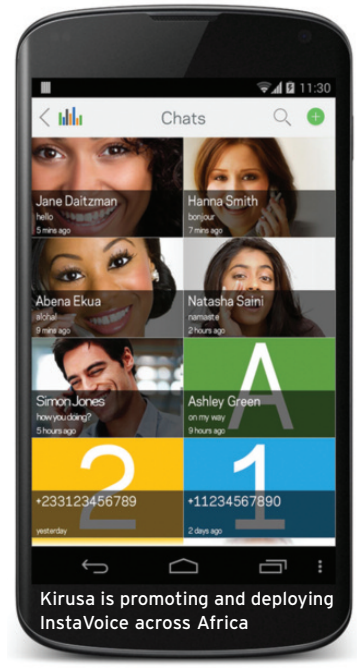
www.onlime.com

Ghanaian entertainer helps Kirusa promote InstaVoice solutions, ahead of new African deployments

VOICE MESSAGING AND social media mobile apps company **Kirusa** recruited top Ghanaian entertainer Deborah Vanessa at AfricaCom 2014 to help promote its InstaVoice portfolio at the key African connectivity event.

Kirusa's solutions include InstaVoice, InstaVoice Celeb and InstaVoice Sports apps, which are offered in partnership with more than thirty-five mobile carriers in Africa, India, Latin America, and the Middle East, as well as via app stores, and are used monthly by over 80mn mobile users in four continents. Kirusa solutions are built on its patented technology, and its highly reliable and scalable multimodal and cloud platforms, which process over one billion events a month.

Deborah Vanessa is a television presenter, model and academic, who is currently presenting for television network **E.tv Ghana**. She is known best for her Ghana YouTube record-breaking single Uncle Obama. At the event in Cape Town, she used Kirusa's InstaVoice Celeb service to stay connected with her fans. InstaVoice Celeb has received a tremendous response in many African countries - including Ghana, Nigeria, Congos, and Ivory Coast. Over 125 celebrities from movies, music, sports, and media are turning to this popular medium to voice their emotions and stay connected with over five million fans.



Kirusa is promoting and deploying InstaVoice across Africa

InstaVoice Celeb is a unique service where celebrities and fans can have real-time conversations using a dedicated application, on smartphones as well as over feature phones, without any media intrusion or spin. InstaVoice Celeb also enables interaction and engagement via multiple channels like contests, events, meetings with celebrities, and winning celeb merchandise.

Ms Vanessa, said, "I have been using InstaVoice Celeb service for the last sixteen months to interact and engage with my fans on a daily basis. It's easy to stay in touch with my loved fans through this service and I look forward to meeting them at AfricaCom."

Kirusa showcased its popular messaging and social media services: InstaVoice, InstaVoice Celeb, and InstaVoice Sports, throughout AfricaCom 2014, and unveiled how these are revolutionising mobile messaging in emerging markets. Ms Vanessa acted as an influential spokesperson for the firm and its solutions. Robert Lamptey, director of marketing at Kirusa, said, "We are delighted that Deborah Vanessa has chosen to join us at AfricaCom to talk about how she is using the InstaVoice services to connect with her fans."

Congolese deployment

Since AfricaCom, and ahead of Mobile World Congress, Kirusa has launched InstaVoice Sports on the **Vodacom** network in Congo. The service allows Vodacom subscribers to connect with and get updates about their favorite soccer clubs and teams. The service is available across Congo on both smartphones and feature phones. The service, offered in partnership with **goal.com**, the leading soccer portal worldwide, includes frequent updates about various European clubs, such as Barcelona, Manchester United, and Chelsea, and about various African national teams.

The company has also formed a partnership with Rwandan mobile and web content provider **Net Solutions**. to enable top Rwandan celebrities like Jay Polly, Lil G, and Tidjarat Kabendera to engage with fans through InstaVoice Celeb. Using the voice micro-blogging feature of InstaVoice Celeb, stars voice their emotions, allowing their fans to hear them, a better option than just reading their text messages on a blog or media outlet.

These messages, called Vobolos, are delivered instantly to subscribing fans, creating a 'voice Twitter'-like experience. Talking about the partnership, Barinderpal Singh Mumick, VP of operations at Kirusa, said with Net Solutions, it aims to synergise individual services and personalise the interaction between celebrities and fans.

Priori to AfricaCom, Kirusa had already launched both Celeb and Sports Connect in Ivory Coast with **Moov**, and its entertainment services in Nigeria with **Etisalat**.

Gionee launches ultra-slim phone at MWC

MOBILE DEVICES PROVIDER **Gionee**'s ultra-slim smartphones, promoted at Mobile World Congress 2015, follow the reveal of the ELIFE S5.5 at MWC 2014 and the recently launched ELIFE S5.1.

"The race to make the slimmest smartphone was getting out of hand. Going so slim is actually not benefiting user experience without the performance to back it up," said by Oliver Sha, head of global marketing of Gionee.

To make a smartphone slimmer, some manufacturers made sacrifices such as eliminating the headphone jack, a protruding rear camera, shortening of the battery life, and a thin frame that brings about heating issues and a bad signal. But is it worth the compromise?

With smartphone manufacturers racing to launch models that can turn heads, this year at MWC, Gionee is looking at a new wave of slim phones that can be elevated to the next level, bringing its latest slim smartphone that's more than beyond slim, without compromising on performance and a focus on delivering a superior user experience, whether in technology, design, or usability.


The ELIFE S5.1 from Gionee

AirStrip and The Batswadi Group bring AirStrip solutions to Africa

Enterprise mobility solution provider **AirStrip** has formed a strategic partnership to bring the AirStrip ONE mobile interoperability platform and the Sense4Baby wireless fetal/maternal monitoring system into ten African countries, with an initial launch in South Africa.

Healthcare firm **Batswadi** will gradually expand the AirStrip product rollout to nine other countries, including Namibia, Botswana, Ghana, Nigeria, Kenya, Tanzania, Uganda, Mauritius and Rwanda.

"South Africa has some of the most advanced hospitals in the world and benefits from a very developed private hospital infrastructure," Batswadi Group CEO Christopher Whitfield, said. "Major players like Netcare, Life Healthcare, Mediclinic and several large independent groups create significant market opportunities for AirStrip not only in South Africa but also in other emerging countries. We are delighted to be partnering with AirStrip."

Batswadi was established in South Africa in 2006 by Whitfield, former CEO of **Eli Lilly South Africa**, to introduce innovative cutting-edge technology to the African continent. Batswadi seeks technology that assists in rapid country development in the healthcare space for the private as well as the public or government sectors. Batswadi recently expanded to include Batswadi USA to bring U.S. based health care technology into Sub-Saharan Africa.

"The Batswadi Group is an established leader in launching innovative healthcare products, and we look forward to deploying AirStrip mobile interoperability solutions in Africa," AirStrip CEO Alan Portela said. "We have seen an extraordinary level of international interest in AirStrip solutions, so this is just one in a series of announcements as AirStrip rapidly grows its presence outside the US in 2015."

CEC Liquid Telecom's extended fibre network enhances Zambian connections

CEC LIQUID TELECOM Zambia has been building a new fibre link between Lusaka and Victoria Falls in Livingstone that will provide both retail and wholesale customers with the most reliable, highspeed broadband connectivity in Southern Zambia.

The estimated cost for the turnkey 500km fibre link build and terminal equipment is US$5mn. The new link starts in Lusaka, transiting through eight southern circuit towns, including Kafue, Mazabuka, Monze, Choma and Kalomo, terminating at Victoria Falls in Livingstone.

CEC Liquid Telecom Zambia is a joint venture between **The Liquid Telecom Group** and **Copperbelt Energy Corporation PLC (CEC)**, a Zambian power transmission, distributing and generating company. Its fibre network, which spans more than 5,000km, is the first fully-redundant network in Zambia, providing service level agreements (SLAs) at a level not previously experienced in the country.

The Lusaka-Livingstone Victoria Falls link provides additional capacity, increased redundancy and route diversity and cements CEC Liquid Telecom Zambia's position as the country's most reliable and consistent broadband provider. At Victoria Falls, the new link interconnects with Liquid Telecom Group's fibre network in Zimbabwe, providing the company with its third route into and out of Zambia.

Liquid Telecom has built Africa's largest single fibre network which runs from the north of Uganda to Cape Town, currently spanning over 18,000km across borders and covering Africa's fastest-growing economies where no fixed network has existed before. International access is through the group's pan-African fibre and satellite networks, which connect to five different sea cables - **WACS, EASSY, SEACOM, SAT3** and **TEAMs**.

Completion of the Lusaka-Livingstone Victoria Falls link is expected by June 2015

CEC Liquid Telecom provides IP Transit, MPLS, backhaul, disaster recovery and data protection services to a wide variety of customers: businesses of all sizes including financial institutions and tourism-related companies, government and academic organisations as well as operators and Internet service providers (ISPs).

Andrew Kapula, managing director of CEC Liquid Telecom Zambia, said, "The Southern part of Zambia, along the economic zone from Lusaka via transit towns to Livingstone, has lagged behind in terms of access to quality ICT services. Our new fibre link will provide much-needed capacity in the area. We are investing heavily in Zambia as part of our goal to build Africa's digital future. We believe in the power of connectivity to transform lives and our goal is to connect as many people in Africa as possible."

Following completion of the Lusaka-Livingstone Victoria Falls link, expected by June 2015,

CEC Liquid Telecom Zambia will continue its build to the border towns of Kazungula and Sesheke to link with Namibia and Botswana.

Global Mobile Awards celebrate newly emerging trends in diversity and innovation

HOST AT THE **GSMA** Mobile World Congress in Barcelona, Spain, 2015 Global Mobile Awards will honour more than 40 winners over nine categories that include awards for Best Mobile Handsets & Devices, Best Mobile Apps, Best Mobile Services, Best Mobile Technology and Social & Economic Development - and will also feature many new awards that showcase emerging trends in the mobile ecosystem. These include awards for wearable technologies, affordable smartphones, the Internet of Things and sectors such as retail and automotive, amongst others. In addition, two new special awards have been introduced to mark the 20th anniversary of the Global Mobile Awards, including the Young Mobile Innovator of the Year, specifically designed to showcase young and exciting new talent, and the Connected Women: Leadership in Industry award, which will recognise initiatives that attract and retain women and girls in mobile and telecommunications.

The 2015 Global Mobile Awards ceremony is held on 3 March

The 2015 Global Mobile Awards ceremony on 3 March include the presentation of the Government Mobile Excellence Awards. These awards, which recognise world-class leadership, will be announced at the GSMA's Ministerial Programme and will include the Government Leadership Award and the Spectrum for Mobile Broadband Award.

This year's host, John Cleese, is best known for his involvement in film and TV productions. The awards ceremony is open to Mobile World Congress attendees from all shortlisted companies, regardless of pass type, as well as all other Mobile World Congress attendees.

On 4th March the shortlist for the Best New Mobile Handset, Device or Tablet at Mobile World Congress 2015 will be selected from those on show at the event. The shortlist will be revealed on Mobile World Live TV, as well as the Global Mobile Awards website, with the overall winner honoured in a live presentation on Mobile World Live TV the following day.

The Global Mobile Awards are judged by more than 300 independent experts, analysts, journalists, academics, and in some cases, mobile operator representatives. The winner of the Outstanding Overall Mobile Technology – The CTOs' Choice award is selected by a panel of more than 17 industry-leading CTOs from the global operator community. These include CTOs from **América Móvil, AT&T, Cable & Wireless, Deutsche Telekom, Etisalat, Meteor, Oi, Orange, PCCW, Singtel, SK Telecom, Smartfren, Telefónica, Three, Turkcell** and **Vodafone**.

Une plate-forme dédiée au secteur énergétique

DANS LE CADRE de la conférence DistribuTECH Power Transmission, **IBM** a annoncé une nouvelle plate-forme analytique en mode Cloud ayant pour but d'aider les entreprises du secteur de l'énergie à la prise de décision. Cette nouvelle solution permet d'éliminer les obstacles financiers à l'utilisation de l'analytique au sein de la production, de la transmission et de la distribution d'énergie tout en fournissant un nouveau niveau de connaissance provenant de volumes de données massifs.

Cette nouvelle plate-forme analytique aide les entreprises du secteur de l'énergie a éliminer des obstacles financiers

Les entreprises des secteurs de l'énergie sont confrontées à un défi de taille : elles doivent fournir de l'énergie de façon fiable, économique et durable et ce dans un marché de plus en plus compétitif. Ce défi pourra uniquement être relevé grâce à des analyses flexibles et évolutives qui permettront de moderniser le réseau public et d'améliorer la production d'énergie.

IBM Insights Foundation for Energy peut être utilisé pour obtenir une vision à 360°, du transformateur individuel au réseau tout entier. Disponible de façon sécurisée sur l'infrastructure SoftLayer d'IBM, la plate-forme associe des logiciels pour l'intégration et la visualisation de la donnée à de l'analytique avancée pour faciliter la prise de décision concernant la maintenance et les réparations. Elle permet également de renouveler les prévisions et l'intégration dans les réseaux, tout en soutenant le développement de l'analytique « personnalisée » pour l'ajuster aux besoins spécifiques de chaque fournisseur du secteur public et de l'énergie.

SoftLayer est devenu le moteur de l'accélération du leadership d'IBM dans le Cloud. IBM a racheté SoftLayer en juillet 2013 pour un montant de 2 milliards de dollars et a continué à réaliser des investissements significatifs pour enrichir son portefeuille Cloud.

Selon **Gartner**, près de la moitié des grandes entreprises effectueront des déploiements en mode Cloud hybride d'ici fin 2017. Alors qu'IBM accélère son leadership dans le Cloud en délivrant des capacités de Big Data ou d'analytique pour les entreprises qui font le choix d'un modèle en Cloud Hybride, aujourd'hui, la compagnie annonce également que des entreprises de différentes industries sont en train de migrer des opérations essentielles pour leur entreprise sur SoftLayer.

Des clients du monde entier adoptent le Cloud d'IBM, dont plusieurs milliers de nouveaux clients qui ont migré vers la plateforme SoftLayer en seulement 1 an. Parmi les plus récents on compte Macy's, Whirlpool, une filiale de Daimler, Sicoss Group et de nombreux autres qui transforment leur opérations pour adopter la nouvelle ère du Cloud hybride.

Alors que les données deviennent la ressource naturelle de l'avenir, les clients cherchent les moyens de stocker et d'exploiter leurs données efficacement, tout en garantissant leur confidentialité et leur sécurité.

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Le LTE-Advanced Carrier Aggregation

L'APPARITION DES smartphones vers la fin des années 2000 a profondément changé l'utilisation des réseaux mobiles. A l'échelle de la planète, le volume de trafic de données mobiles a dépassé, en 2009, celui du trafic voix. A ce jour, avec 2,7 milliards de smartphones en opération, le trafic de données mobiles mensuel global dépasse les 2 ExaOctets, (2 suivi de 18 zeros) et croît exponentiellement. Une étude réalisée sur les internautes, et a publié par **Akamai**, a montré la corrélation entre le temps d'initialisation d'une vidéo et l'abandon de son visionnage. Lors de l'initialisation du streaming, l'abandon commence dès 2 secondes d'attente et augmente de 5,8 % par seconde supplémentaire. L'expérience de l'utilisateur est fortement dépendante de la rapidité d'affichage sur l'écran. Plus l'affichage est rapide, plus l'expérience est agréable, et répond à l'attente d'un certain niveau de confort. Parmi les premiers contributeurs de la rapidité d'affichage, le très haut débit des réseaux 4G et la faible latence sont des caractéristiques primordiales. Dans le cadre de la vidéo, outre la rapidité de démarrage, le très haut débit permet une plus grande qualité d'image, mieux adaptée aux plus grands écrans des smartphones et tablettes.

Selon Eric Hatton, Directeur Technique de Compte chez **Ericsson France**, L'ensemble des abonnés grand public et professionnels apprécieront aussi les temps de téléchargement sensiblement raccourcis par un débit plus élevé. Dans ce contexte, la performance du réseau est primordiale. On peut s'attendre à ce que les opérateurs ayant construit les meilleurs réseaux pour un grand confort de navigation bénéficieront en retour d'une meilleure satisfaction et taux de rétention de leurs abonnés.

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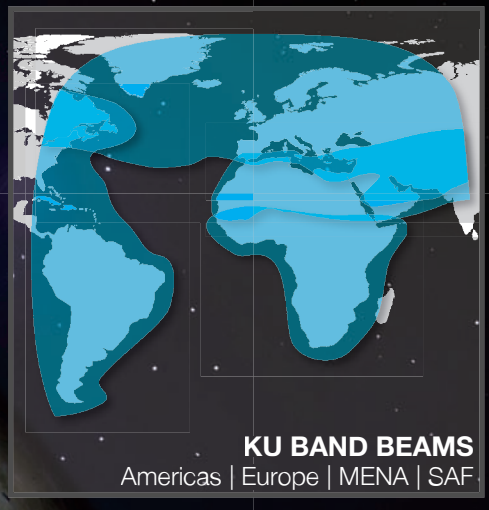

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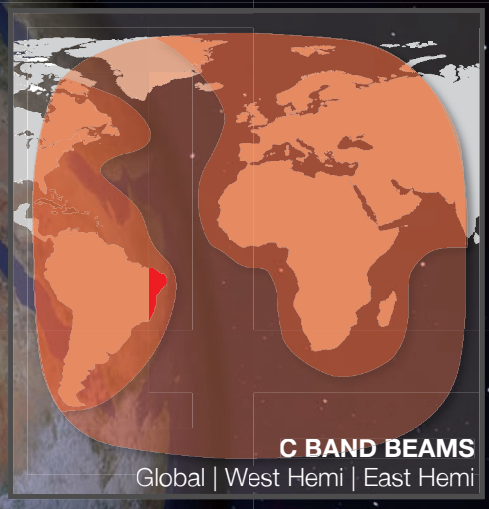

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