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A note from the Editor

IN THIS ISSUE of Communications Africa/Afrique, there is a report from a data centre service to entities operating in Africa and the Middle East. There is, also, an assessment of the viability of TETRA communications. This issue focuses, too, on risk and fraud management solutions for mobile architectures. Following money analysis of satellite platforms for communications technologies, this issue addresses the broadcast market with a review of NAB and the annual Broadcast Buyers Guide

Main Cover Image: Interxion **Inset:** Telplus Communications

Commerce **Satellite** Zambia's booming market in satellite support for information and communications technology platforms

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NUMÉRO Communications Africa/Afrique, il y a un article au sujet d'un câble sousmarin direct entre Perth et Djibouti. Il y a aussi un rapport sur commerce, d'un accord entre MTN et WorldRemit sur un partenariat important de mobile money

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Gabon Telecom modernises wholesale billing operations with CSG

CSG INTERNATIONAL, WHICH provides interactive transaction-driven solutions and services, has implemented its Wholesale Business Management Solution for Gabon Telecom - including its Interconnect and Intermediate solutions - supporting both the wireless and wireline business; Bernard Mbangangoye, directeur international et interconnexion at Gabon Telecom, said, "With the CSG solution we are able to control our wholesale process from end-to-end, correctly capturing data records, accurately invoicing our partners, and shortening the time to settlement."

Globalstar launches Sat-Fi to turn Wi-Fi enabled devices into satellite phones

INDUSTRY SERVICE PROVIDER **Globalstar Europe Satellite Services** has introduced Sat-Fi into Europe, the Middle East and Africa (EMEA), so customers can use existing smartphones and existing phone numbers to send and receive communications over Globalstar's satellite network, offering voice and data connectivity when beyond the range of the mobile phone network; using a Sat-Fi satellite hot spot, up to eight individuals can make and receive voice calls and e-mail using an app that runs on Wi-Fi enabled devices including tablets, smartphones and laptops.

Vonetize broadens VOD service coverage across the continent with new deal

GLOBAL VIDEO ON demand (VOD) services provider **Vonetize** is expanding its Aflix content service through a major partnership with a leading telecom in Africa; Aflix is the first over-the-top (OTT) premium content service in Africa, launched in 2014 in 33 countries, offering top-tier content from major Hollywood studios including feature films, television series, children's content and more.

Clear-Com presents innovative connectivity solutions at Infocomm

COMMUNICATION AND CONNECTIVITY tools producer **Ckear-com**'s new portfolio of solutions, as presented at Infocomm 2015, demonstrate demonstrate the company's pedigree as a full system solution provider, able to offer not only robust and reliable voice comms systems but also the glue that binds entire audio-visual (AV) networks together; the FreeSpeak II 1.9GHz roaming wireless solution, for example, has already proven to be an exceptional wireless intercom system for large-scale productions, supporting up to five separate channels per wireless beltpack, providing more expansive roaming coverage using multiple antennas.



FreeSpeak II systems can co-operate with a mix of 1.9GHz and 2.4GHz beltpacks and antennas

Safaricom selects Ericsson for network upgrade to serve Kenyan customers

ERICSSON HAS SIGNED a multi-year agreement with Kenyan mobile operator **Safaricom** to support the upgrade and expansion of its converged mobile network infrastructure, which will see Ericsson deploy Wi-Fi technology for the first time on the Safaricom network as well as expand and enhance the MINI-LINK microwave transmission network, enabling subscribers to enjoy a richer quality of mobile broadband in the country; Robert Rudin, country manager at Ericsson Kenya, said, "We are proud to support Safaricom in their continuous bid to stay ahead of the market, ensuring the best services for their customers."



ECI showcases 400G blade at WDM and Next Generation Optical Networking event

A GLOBAL PROVIDER of next-generation, elastic network solutions, the **ECI Telecom** 400G flexible grid blade for the Apollo product line, as showcased at WDM and Next Generation Optical Networking in Nice, France, is designed to transport data with higher spectral efficiency and port density, resulting in reduced rack space and less power consumption; "Knowing that this will only continue to increase at staggering rates, ECI engineered a card that is truly future-proof, one that can not only handle today's traffic but tomorrow's as well," said Jimmy Mizrahi, head of ECI's portfolio business lines.

ITU celebrates 150th anniversary of its foundation with awards for industry experts

INTERNATIONAL TELECOMMUNICATION UNION (ITU) has celebrated its 150th anniversary, during which it has earned a "global reputation for resilience and relevance" in the words of **United Nations** Secretary-General Ban Ki-moon; in response, ITU Secretary-General Houlin Zhao observed, "The remarkable history of ITU exemplifies its stellar role in connecting the world to the most advanced and innovative means of communication, from the days of the telegraph to the Internet and mobile broadband, which now allows us to be in touch anytime, anywhere with friends, family, colleagues and even things."

Gearhouse SA returns as official technical sponsor for Mediatech 2015

TECHNICAL SOLUTION COMPANY **Gearhouse Group** again has played a key role in running the 2015 edition of Mediatech Africa, the media and entertainment technology trade show for southern Africa, staged in Johannesburg every second year; Robyn D'Alessandro, national marketing manager for Gearhouse Group, which has participated as official technical sponsor of Mediatech since 2009, said, "We see this as an opportunity to give back to the industry in a small way."



Michelin connecte la Ford Focus Electric à la route et au monde numérique

LA NOUVELLE **FORD** Focus Electric sera doublement connectée... A la route, grâce aux pneus **Michelin** Energy Saver, et aussi au monde numérique, grâce aux guides Michelin disponibles en prétéléchargement dans son système de communication embarqué SYNC2. Toutes les Ford Focus Electric commercialisées seront équipées de pneus Michelin Energy Saver de dimension 215/55 R 17. Ces pneus délivrent une combinaison optimale de performances assurant un haut niveau de sécurité, d'autonomie grâce à une faible résistance au roulement, de comportement dynamique et de confort.



La nouvelle Ford Focus Electric sera doublement connectée

Le pneu Michelin Energy Saver est la nouvelle génération de pneus à haute efficacité énergétique du Groupe. Il est une matérialisation aboutie de Michelin Total Performance, stratégie qui consiste à associer davantage de performances dans un seul pneu.

Concernant le contenu numérique de Michelin dans le système Ford SYNC2, les conducteurs auront accès à une grande variété d'informations touristiques, hôtelières et gastronomiques du Guide Vert Michelin et du Guide Michelin. Celles-ci sont parfaitement intégrées au système de navigation de bord, ce qui permettra aux conducteurs de planifier leurs itinéraires, ainsi que leur lieu d'hébergement, leur restaurant et même les sites touristiques à visiter.

Depuis plus de 100 ans, Michelin est un leader dans la publication de guides touristiques et gastronomiques. Cette expérience se reflète désormais dans sa gamme de solutions numériques mise à disposition des clients. À présent, les conducteurs de la Ford Focus Electric peuvent aussi bénéficier de cette longue expérience à travers son système SYNC2.

Microsoft Ignite - au cœur de la transformation numérique des entreprises

A L'OCCASION DE la 1ère édition de l'évènement **Microsoft** Ignite, Microsoft a présenté les nouveaux produits et services à destination des professionnels de l'IT pour les aider à entrer dans la nouvelle ère de l'informatique d'entreprise.

Vers une IT toujours plus personnalisée

Windows Update for Business permet de bénéficier d'un Windows toujours à jour, en termes de fonctionnalités et de sécurité sur l'ensemble des terminaux de l'entreprise. System Center Configuration Manager, en preview ce jour, offrira l'ensemble des outils pour déployer, mettre à jour, gérer et sécuriser Windows 10 sur l'ensemble des équipements.

Réinventer la productivité

Office 2016 intègre la fonctionnalité de co-édition en temps réel à l'application desktop d'Office aujourd'hui utilisée par plus d'un milliard de personnes à travers le monde. Skype Entreprise Broadcasting, présenté aujourd'hui, proposera aux clients de Skype Entreprise de diffuser simultanément une conférence vidéo auprès de plus de 10 000

personnes. Organisational Analytics pour Office Delve, nouvelle fonctionnalité d'Office Graph présentée aujourd'hui permettra d'avoir une information plus riche et pertinente de l'organisation et des individus au sein d'Office 365. SharePoint Server 2016, disponible en preview dans l'année, proposera de nouvelles fonctionnalités pour améliorer l'expérience utilisateur, la conformité et le reporting. Exchange Server 2016 apportera de nouvelles fonctionnalités dans Office 365, dans un premier temps, et proposera notamment une nouvelle approchedu document collaboratif, une recherche plus rapide et intelligente, l'amélioration d'eDiscovery et l'extensibilité développeur pour le courrier, les calendriers et les contacts.

Un cloud intelligent

Microsoft Azure Stack, une nouvelle génération de Cloud Hybride disponible en preview cet été. La prochaine version de Windows Server 2016 disponible en preview dès aujourd'hui, propose une plateforme premium pour les applications Cloud et entreprises, incluant les dernières technologies telles que le Nano Server. SQL Server 2016, disponible en preview cet été, prend un virage important avec sa plateforme de base de données et d'analytiques en fournissant un très haut niveau de performance pour les applications critiques ainsi que la possibilité de réaliser des analyses approfondies des données qu'elles soient hébergées dans le Cloud ou on-premise. Microsoft Advanced Threat Analystics (ATA) basée sur la récente acquisition de Aorata et disponible en preview. Office 365 transparency and control enhancements offre aux clients une meilleure visibilité et sécurité de leurs données résidant dans Office 365, y compris les clients Lockbox qui fournit aux clients des droits d'approbation explicites concernant l'interaction de Microsoft avec leurs données.



Exchange Server 2016 apportera de nouvelles fonctionnalités dans Office 365



Microsoft Azure Stack est une nouvelle génération de Cloud Hybride





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Even	ts/Événements 2015		
JULY/JUILLE	Г		
30 Jun-1 Jul	VAS Africa	Johannesburg, South Africa	vasafrica.comworldseries.com
5-7	HR4ICT	Maputo, Mozambique	www.cto.int
6-8	PACT	Kampala, Uganda	ib2com.org/PACT
15-17	Mediatech Africa	Johannesburg, South Africa	mediatech.co.za
28-29	Banking & Mobile Money Lagos	Lagos, Nigeria	aitecafrica.com
AUGUST/AOÛ	T		
10-11	Broadcast, Film & Music Africa	Nairobi, Kenya	aitecafrica.com
SEPTEMBER/	SEPTEMBRE		
9-10	Banking & Mobile Money COMESA	Nairobi, Kenya	aitecafrica.com
10-15	IBC	Amsterdam, The Netherlands	www.ibc.org
14-16	Commonwealth Telecommunications Organisation Forum	Nairobi, Kenya	www.cto.int
15-16	Cards & Payments East Africa	Nairobi, Kenya	www.terrapinn.com
15-16	Ecommerce Show East Africa	Nairobi, Kenya	www.terrapinn.com
22-23	Internet of Things Security	Boston, USA	iotsecurityevent.com
22-23	Nigeria Com	Lagos, Nigeria	nigeria.comworldseries.com
29-30	Middle East Com	Dubai, UAE	me.comworldseries.com
OCTOBER/OC	TOBRE		
 1-4	ICT for Africa	TBC	www.ictforafrica.org
12-15	ITU Telecom World	Budapest, Hungary	telecomworld.itu.int
14-16	ICDE	Sun City, South Africa	www.unisa.ac.za
18-22	GITEX	Dubai, UAE	www.gitex.com
21-22	Banking & Mobile Money Accra	Accra, Ghana	aitecafrica.com
26-27	CN4IoT	Rome, Italy	cloudniot.org
26-29	SecureComm	Dallas, USA	securecomm.org

Cloud World Forum builds business in the Cloud

AS THE DIGITAL world continues to accelerate, IT purchasers are undoubtedly leveraging Cloud, analytics, mobility and social technologies in order to stay ahead of emerging competition and maintain the pace of innovation. With Cloud computing continuing to replace rigid software and service models, this year's Cloud World Forum (24-25 June) will respond to IT professionals who are focussed on building and investing in future-looking Cloud models. CIOs have to hone new skills and learn how best to harness the power of Cloud, coordinating their IT investments and strategies. While for start-ups and SMEs, the Cloud allows them to compete with their incumbent counterparts and in some instances, surpass them. Coupled with the fact that the Cloud lies at the core of disruptive technologies which are shaking up the

industry, IT investors need to forward-think and create flexible, scalable business models that are built on the Cloud.

As EMEA's largest Cloud event, 2015's Cloud World Forum hosts 16 content theatres and boasts the industry's most comprehensive agenda, shaped by in-depth conversations with C-level IT purchasers and technology pioneers. With over 300 enterprise speakers, discussions will be focussed on the IoT, DevOps, containerisation, hyperscale computing, software defined everything, communications and collaboration, and employee experience.

A number of exciting new features have been added to 2015's programme, including the Cloud Tech Hub which will connect the tech start-up and SME community. Working in conjunction with leading technology influencers, this will bring a dedicated area for new and rising companies to exhibit in, alongside bigger tech players such as **Salesforce, Google** and more. On the evening of the 24 June, it will also host a DevOps meetup led by David Gildeh, founder and CEO of new start-up **Dataloop.IO**, which is focussed on building a new monitoring tool for DevOps/Operations teams that run Cloud services at scale.

"While cloud has already gone through a massive growth, it's still a fraction of what's about to come," said Ewa Campbell, head of marketing, Cloud World Series. "Cloud World Forum 2015 responds to the investment areas and trends and by expanding the show's content we are ensuring need-to-know information is delivered to meet the demands of senior IT professionals."

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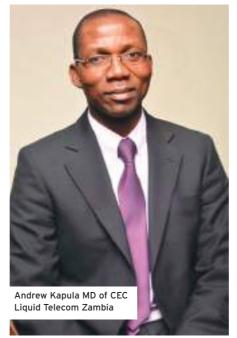


CEC Liquid Telecom continues investment in Zambian market with acquisition of ISP

A JOINT VENTURE between the **Liquid Telecom Group** and **Copperbelt Energy Corporation (CEC), CEC Liquid Telecom** is expansding its business in Zambia following the full acquisition of **Realtime**, the second largest Internet service provider in Zambia.

Realtime Technology Alliance Africa Ltd (Realtime) will now focus on the retail and business markets in Zambia which are not regulated by the Zambia Information and Communications Technology Authority (ZICTA). It will provide communications services to homes and businesses of all sizes across Zambia, using the satellite and fibre networks of CEC Liquid Telecom as well as its existing WiMAX network. Realtime will also be a reseller for Fibroniks, Liquid Telecom's Fibre to the home service over which homes and businesses of all sizes can receive 100Mbps, the fastest broadband ever available in Zambia.

The Fibroniks service - with its unlimited data packages - is initially available to 15,600 homes and businesses in Lusaka including the areas of Rhodes Park, Northmead, Long Acres, Sunningdale and Kabulonga. The FTTH build will continue and is expected to reach 20,000 premises in Lusaka by year-end. Services will become available as each



targeted area is connected, with a likelihood that the build will extend to Copperbelt towns by the end of the year.

CEC Liquid Telecom will continue to provide wholesale products and services to all licensed

operators in Zambia. Realtime will receive network access from CEC Liquid Telecom on the same terms as other providers.

Andrew Kapula, CEC Liquid Telecom managing director, said, "This is another major milestone for both our company and the Zambian telecoms market. We will continue to invest in Zambia so that we can provide operators, ISPs, homes and businesses of all sizes with the fastest and most reliable broadband available in Zambia. We believe in the power of connectivity to change lives and will continue to build a high-quality network that will enable our people and businesses to prosper."

CEC Liquid Telecommunications Limited is a joint venture between The Liquid Telecom Group and Copperbelt Energy Corporation, a Zambian power generation, transmission and distribution company. It has established itself as the country's most reliable and consistent broadband provider. Its nationwide fibre network is the first fully redundant network in Zambia, providing SLAs at a level not previously experienced in the country. International access is through the multi-award-winning pan-African fibre and satellite networks of the Liquid Telecom Group.

Vonetize and Tigo offer premium content in Rwanda

VONETIZE, A VIDEO on demand (VOD) solutions provider operating in over 60 countries, has formed a partnership with global telecom operator **Tigo**.

The deal will allow Tigo to distribute and market Vonetize's premium content service in Africa, branded Aflix by SmartVOD, to its 2.5mn cellular customers in Rwanda.

Vonetize develops premium content services and technology platforms for Smart TVs and mobile devices that reach millions of viewers worldwide, with an emphasis on emerging markets. The company launched Aflix, the first OTT premium content service in Africa, less than a year ago. The service now spans 34 countries on the continent, and offers top-tier content from major Hollywood studios including feature films, TV series, children's content and more.

The spread of information and communications technology in African countries in recent years is unprecedented, with the development of faster Internet service, 4th Generation LTE networks, fiber-optic distribution, and a proliferation of cellular devices and smartphones. These developments pave the way for internet video services like Aflix to provide their services at affordable prices and with optimal quality throughout the continent.

"Rwanda has made leaps and bounds with regard to its internet infrastructure, making Tigo the perfect partner for our launch in Rwanda," said Noam Josephides, CEO of Vonetize. "Consumers there long for affordable, quality content and Aflix is the only Hollywood content service available in Sub-Saharan Africa feeding this need. We see extraordinary potential for growth as the region continues to develop."

Tigo, owned partly by Israeli businessman Hezi Betzalel's Marathon Group, operates cellular companies in 14 countries and has approximately 56 million customers. The telecom giant will incorporate Aflix as part of its service packages to cellular customers in a bundle along with internet surfing options that are currently offered to customers.

Vonetize also has marketing and distribution partnerships with consumer electronics giants including Samsung and Toshiba.

Ghanaian network backbone completed

ALCATEL-LUCENT AND National Information Technology Agency (NITA), the ICT policy arm of Ghana's Ministry of Communications, have completed the Eastern corridor rural fibre optic backbone project, designed to open up communications across rural areas of Ghana. John Dramani Mahama, the President of Ghana, was among the local and national dignitaries who attended a recent ceremony at the University of Health and Allied Sciences in the Ho, Volta region of the country, marking the achievement.

Signed in 2012, the project is significantly expanding communication links between Ghana's Coastal line and Northern Boundary to Burkina Faso. The optical backbone will also improve communications links for central and regional administration offices, in support of the national 'e-Ghana' programme initiative. The Danish International Development Agency (DANIDA) financed the project.

The Eastern corridor fibre optic backbone network - designed and deployed by Alcatel-Lucent- spans 775km, linking Ghana's north and south as well as international submarine gateways via its eastern corridor. It serves major towns such as HO, Kpando, Jasikan, Nkwanta, Bimbila, Yendi, Tamale, Gushiegu and Bawku as well as 23 smaller communities. Using Alcatel-Lucent's agile optical networking based on the 1830 Photonic Service Switch with 100G technology, the network will enable new business efficiencies, providing high-speed data links between central government offices and remote regional locations. It will maintain quality and reliability telecommunications, email and Internetbased services, with the ability to expand to support e-services in health, education, justice, immigration, parliament and other sectors. Alcatel-Lucent has also provided computing and storage infrastructure for two data centres including help desk infrastructure, a performance management and rating system and an e-Learning Management System. Alcatel-Lucent will continue to manage network operations for Ghana's entire 'e-government' infrastructure until 2016.

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African B2C e-commerce set to escalate over next three years

A NEW REPORT by business intelligence organization **yStats.com** indicates that African B₂C e-commerce is expected to rise radically, stimulated by increasing Internet penetration, improving infrastructure and especially the increase in mobile connectivity.

Africa may be considered a late entrant to the global e-commerce stage. Low internet penetration, underdeveloped logistics and limited cashless payments infrastructure, as well as low incomes and high poverty rates have hindered the uptake of online shopping in this region. However, recent signs of improvements have led to forecasts of B2C e-commerce sales growing at high rates to a double-digit number, in terms of billions of euros over the next three years.

South Africa and Nigeria are the continent's leaders in online retail development.

While South Africa has been in view for years as an important emerging market, Nigeria is a rising star. As the regions' most populous country, it has already surpassed South Africa in economy size and has topped all other African nations in terms of the number of Internet users and mobile phone owners. Local online merchants **Jumia** and **Konga** are among the country's most

popular websites. Jumia has already expanded beyond Nigeria to other markets in the region, while both companies received substantial investment to fortify their positions on the domestic market, as the launch of **PayPal** in Nigeria in 2014 is expected to bring more international competition.

Still, South Africa is significantly ahead of all other countries in the continent by such important infrastructure indicators as Internet, smartphone and payment card penetration. An important development

in South Africa is the declining share of online spending on foreign websites. Fear of hidden charges and the convenience of buying from local merchants are cited as major reasons for not buying crossborder. Nevertheless, global merchant Amazon ranks among the most visited ecommerce websites in the country, while the two largest South African online merchants - **Kalahari.com** and **Takealot.com** - have decided to merge to join their forces against increasing local and international competition. Overall, South African B2C e-commerce market potential is still largely untapped, as online accounted for only slightly more than one per cent of total retail sales in the country in 2014.

Looking at other African nations, Morocco and Egypt are Africa's most advanced markets in Internet penetration, which reached more than half of the population in these countries, as of 2014. Online shopper penetration stood at

below 10 per cent in these countries, though especially in Morocco, the number of users buying over the Internet has grown significantly. In Egypt, a particular characteristic is significance of the social network Facebook, which not only

generates traffic for online merchants such as Souq.com and Jumia, but also is cited by online shoppers as a website for direct placement of orders. Kenya is Africa's leader in all aspects of mobile: mobile connections account for almost all of Internet subscriptions in the country, while the number of people using mobile payment services has been growing each year to reach a significant double-digit number in 2014. Still, the country's e-commerce market is smaller than that of some other African countries, through by mobile shopper penetration it topped them all, ranking first in this parameter together with Nigeria.

TNS, Kantar Media research with GeoPoll in Africa

Global research consultancy **TNS** has formed an exclusive and wide-reaching strategic partnership with **GeoPoll**, the world's largest mobile survey platform. Under the multi-year agreement, TNS and sister company **Kantar Media**, which specialises in audience measurement and analytics, will join forces with GeoPoll to deploy a new range of research products and services intended to deepen and improve market research in Africa, including:

- Giving TNS access to GeoPoll's platform and user database: TNS will utilise GeoPoll's mobile surveying platform and user database to conduct mobile research projects for clients throughout Africa.
- Collaboration on media measurement services: TNS and Kantar Media will work with GeoPoll to expand its media measurement service within Sub Saharan Africa, providing support in the areas of media planning software, sampling and weighting expertise.
- Expanding Kantar Media's data products in Africa: TNS, Kantar Media and GeoPoll will jointly sell Kantar Media's Global TGI product in a number of markets, bringing regular consumer insights.

TNS and Kantar Media are both part of Kantar, one of the world's largest insight, information and consultancy groups. Future collaboration between GeoPoll and Kantar's other operating companies in the region is envisaged.

Kim MacIlwaine, CEO, TNS Africa, Mediterranean & Middle East said: "Mobile is an increasingly important mode of communication for market researchers, and we're excited to collaborate with GeoPoll to expand our data product offerings in key African markets. We believe GeoPoll's robust mobile surveying technology combined with TNS and Kantar Media's expertise in market and media research will be beneficial to all of our clients working in Africa."

"GeoPoll has worked hard to drive increased access to quality information in Africa. We're excited to partner with TNS and Kantar Media to improve the availability of reliable, cost-effective data across Africa and look forward to expanding the partnership in the coming years," said James Eberhard, CEO of GeoPoll and its parent company Mobile Accord.

Jumia bolsters e-commerce lead in Côte d'Ivoire

ONLINE SHOPPING ENTERPRISE **Jumia** Côte d'Ivoire has undertaken the relocation of its Treichville warehouse to a brand new, twice as large storage facility warehouse, in the industrial zone of Koumassi; a suburb of Abidjan. Operations at the new warehouse are scheduled to start today. Motivated employees, a new working environment, and a high-tech warehouse: all the ingredients to maintain Jumia's success are there.

Almost two years after Jumia placed the daring bet to revolutionize shopping habits in Côte d'Ivoire, e-commerce has resolutely become synonymous with the company's name. The online shopping mall steadily continues to expand in such way that, the capacity of its former warehouse has been exceeded. Jumia's new warehouse comprises a storage capacity of 2000m2 situated in the neighborhood of Koumassi, with all the technology and facilities necessary to the implementation of a multichannel logistics strategy. Being part of the expansion plan that led the company to increase its human capital by 7 and double its deliveries, this recent move is intended to further enhance the quality of the delivery experience.

With around 500,000 monthly unique visitors, an assortment of over 50,000 products, 20 categories, 1000 orders fulfilled daily, Jumia Côte d'Ivoire recorded a monthly sales growth of 14 per cent in 2014, only in the fashion category. However, the e-commerce company is not resting on its laurels. No week goes by without Jumia Côte d'Ivoire signing new partnerships or launching new products. Moreover, a plethora of products have been exclusively introduced by Jumia for the first time on the Ivorian market these last months: Infinix, Innjoo, refurbished Apple. Before long, ranges of the famous beauty brand Dark and Lovely from L'Oreal will be available at very competitive prices for the enthusiastic e-shoppers. Finally, a dedicated B2B service was recently set up to answer the needs of businesses and professionals. Jumia Côte d'Ivoire is definitely everywhere.

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L'UIT et Iridium renforcent les services de télécommunication en cas d'urgence au lendemain de catastrophes naturelles

IRIDIUM COMMUNICATIONS INC, une société de communications par satellite qui fournit des services de communication vocale et de transmission de données dans le monde, a fait don de nouveaux équipements de télécommunication d'urgence à l'UIT. Les équipements donnés, à savoir 25 téléphones satellitaires et batteries, renforceront la capacité de l'UIT à déployer des télécommunications à la suite de catastrophes naturelles.

Iridium, membre de longue date de l'UIT, apporte une assistance à l'Union pour les télécommunications d'urgence depuis 2007, année où la société a pour la première fois fait don de téléphones mobiles par satellite et de batteries solaires à l'UIT.

"Nous remercions Iridium pour cette généreuse contribution", a déclaré M Houlin Zhao, Secrétaire général de l'UIT. "Les nouveaux équipements donnés, conjugués à la fiabilité du réseau Iridium, renforceront grandement la capacité de l'UIT à déployer des moyens de télécommunication d'urgence et consolideront les mécanismes d'intervention et de retour à la normale après une catastrophe."

"Le don fait par Iridium arrive à point nommé alors que la fréquence des catastrophes naturelles ne cesse d'augmenter", a déclaré M. Brahima Sanou, Directeur du Bureau de développement des télécommunications de l'UIT. "Le partenariat qui nous unit témoigne clairement de notre engagement sans faille à utiliser la technologie pour sauver des vies."

L'UIT a récemment déployé 35 téléphones mobiles satellitaires et 10 terminaux par satellite du réseau mondial à large bande au Népal suite au tremblement de terre qui a frappé le pays. Ces équipements, parmi lesquels

figuraient des téléphones satellitaires Iridium, permettent d'acheminer, dans les meilleurs délais, les informations dont les organismes publics et des organisations humanitaires ont grand besoin pour mener à bien les opérations de secours.

"Les travaux menés par l'UIT au Népal, ainsi que dans d'autres pays frappés par une catastrophe, sont de la plus haute importance", a fait observer M Matt Desch, P.-D. G. d'Iridium. "Bien souvent, après une telle succession de séismes, la plupart des infrastructures de télécommunication sont endommagées ou détruites; les communications doivent donc pouvoir être acheminées par un réseau à satellite mondial et fiable, qui est essentiel pour assurer le retour à la normale au cours des jours et des semaines suivant la catastrophe. Nous sommes fiers de contribuer à ces travaux et espérons que notre aide permettra de faciliter les opérations de secours et de reconstruction."

A la troisième Conférence des Nations Unies sur la réduction des risques de catastrophe tenue à Sendai (Japon) en mars 2015, l'UIT a souligné que, alors que l'on recense dans le monde plus de 7 milliards d'abonnements au cellulaire mobile, près de 3 milliards de personnes connectées à l'Internet et 4,9 milliards d'appareils connectés, les TIC peuvent contribuer pour beaucoup aux efforts visant à réduire les risques de catastrophes.

L'UIT considère que les télécommunications d'urgence font partie intégrante du programme de développement durable pour l'après-2015. Avec des technologies innovantes et conviviales, il est facile aux habitants des communautés locales de lancer le plus tôt possible des signaux d'alerte et d'être les premiers à intervenir après la survenue d'une catastrophe.

SES et I DO IT présentent l'antenne SelfSat>IP

UNE ENTERPRISE QUI fournit des services de communication par satellite, **SES** a présenté la première antenne plate pour réception satellite bande KU avec intégration IP-LNB, à l'occasion de son évènement Journées de l'industrie annuel. L'antenne est produite par le fabricant coréen **I DO IT**.

Grâce à sa petite taille (566 x 300 mm), cette nouvelle antenne peut discrètement être installée lorsqu'il n'est pas possible de mettre en place des antennes paraboliques standard, p. ex. dans les blocs d'immeubles en milieu urbain. Des versions dotées d'un routeur WiFi

sont également disponibles pour le marché du camping.

L'antenne SELFSAT>IP est conforme au protocole des communications SAT>IP et intègre huit syntoniseurs par satellite. Elle permet de diffuser en direct des émissions par satellite en HD et en Ultra HD, par le biais d'un réseau WiFi à domicile, qui peuvent s'afficher sur huit appareils différents au maximum (smartphone, télévision, ordinateur personnel, ordinateur portable, etc) simultanément. Dotée de deux sorties coaxiales classiques qui viennent s'ajouter à sa sortie IP, l'antenne peut

également être connectée aux récepteurs satellites existants.

« Depuis plusieurs années, I DO IT est considéré comme étant un précurseur dans le domaine du développement et de la production en série d'antennes plates bande Ku de haute performance destinées aux marchés internationaux de la grande consommation », a déclaré Seung Joon IM, président-directeur général de I DO IT. « Notre collaboration avec SES nous permet désormais d'intégrer la technologie SAT>IP dans nos antennes. Cette intégration permet de diffuser des émissions télévisées par satellite, en direct, par le biais du réseau WiFi vers les tablettes et les téléphones intelligents, ce qui est une caractéristique importante du produit, particulièrement pour le marché du camping. »

« Aujourd'hui, plus de 40 fabricants développent des produits compatibles avec la norme SAT>IP et nous sommes très heureux d'apporter un soutien à I DO IT dans le cadre de ses efforts à cet égard », a fait savoir Thomas Wrede, Vice President, Reception Systems chez SES. « Ces développements ont été fortement stimulés et appuyés par l'évènement Journées de l'industrie de SES et n'auraient pas pu se concrétiser en l'absence des efforts conjoints de l'industrie. Nous continuons de tirer profit des avantages des communications par satellite, en façonnant notre industrie et en créant un écosystème durable et de haute performance. »



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A POP that delivers on performance and price

Peering in Marseilles with Interxion and France-IX is well-established and increasingly well-positioned to serve online enterprises operating in Africa and the Middle East



RANCK SIMON, MANAGING director of France-IX,, recently spoke about the value of Marseilles as a point of presence (POP) for international interconnection, and particular for online enterprises in Africa, the Middle East and Asia. France IX is a non-profit association aimed at improving peering in France, which has extended its operations to connect international entities. It is hosted in Marseilles by Interxion, one of the group's founding members. Interxion manages France-IX's first POP in Marseilles.

France-IX has 270 connected members, which include operators, email service providers, online media, cloud and hosting entities, content delivery networks (CDNs), large companies and e-commerce firms. 50 per cent of members are based in France,

with 50 per cent based in Europe, America, the Middle East and Africa. According to Mr Simon, cloud providers are particularly important, because of their commercial associations with entities such as CDNs, to which they provide services. Performance data seen by Communications Africa/Afrique indicates that peaks in traffic at the Marseilles POP are attributed to CDNs.

Around 95 per cent of its members have an open peering policy, which means that any newly connected member can reach a certain level of traffic instantly by peering with the routes servers, without the need to negotiate a series of bilateral agreements. This is critical in terms of saving time and dismissing the possibility of technical issues affecting connectivity.

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DATA

Services, access and Africa

Marseilles has acted as a POP since 2012. Between 2012 and 2014 15 members were connected - mostly, these were CDNs - before the first African peer joined in December 2014. By May 2015 there were 18 connected members running at 37Gbps peak traffic. France-IX offers public and private peering, interconnection, network time protocol (NTP) synchronisation, routes servers, 24/7 network operations centre (NOC) services, and domain name system (DNS) services. Interestingly there is access to three DNS servers operated by Association Française pour le Nommage Internet en Coopération (AFNIC), the French Network Information Centre, which acts as the French Registry not only for the .fr (France) extension but also such domains as .re for Reunion Island and .yt for Mayotte. AFNIC is also positioned as a provider of technical solutions and services for registries and registrars. With respect to mainstream African enterprises, tthe prime African reseller in Marseilles is Seacom, a network service provider and ICT enabler established in 2007 to support Internet deployment in Africa.

Cloud providers are particularly important, because of their commercial associations with entities such as content delivery networks

The Marseilles POP has been competitive in terms of cost as well as because of its geographically strategic location. Prices have come down where possible. and Mr Simon said, "We aim to provide the best service for the best price."

There is significant potential for further growth in traffic and revenues from Africa, as entertainment and gaming segments gain significance. Mr Simon said, "We see a growing demand from African operators, not only for content but also for gaming, and we expect this growth to continue."

Interxion's commitment to Internet exchange services

Fabrice Coquio, president of Interxion, spoke recently about the management and commercial potential of the Marseilles data centre, and Interxion's position within France-IX. Interxion operates 39 data centres in 11 countries. It has over 500 connectivity providers and 20 Internet exchanges. Its business model is based around city centres, in low latency locations. Latency is a key point addressed by Interxion. Gaming companies, for example, need low latency connections to provide profitable services to gaming communities. Similarly, the growth of mobile banking services in Africa means that African financial institutions need minimal latency, but highly secure arrangements, of the kind provided by France-IX and Interxion. Interxion can provide, from Marseilles, 17 milliseconds connection to Alexandria, for example - and there is the possibility now of connection from Marseilles to cities such as Mombasa in less than 25 milliseconds. Given that, by 2050, Africa will be populated by more than two billion people the commercial opportunities stemming from this kind of performance is huge.

Interxion is a neutral partner. The company was established in 1999 and has been managed for the past 16 years by Mr Coquio. Its data centre in Marseilles is geared towards emerging markets for connectivity - and, logically, Africa is a key component of its future profiling. The Marseilles site, MRS1, has a concurrently maintainable architecture, offering 99,999 per cent availability. The facility is monitored 24/7, 365, in real-time, and is equipped with high-specification cooling towers, chillers, CRAC units, fire-fighting equipment, generators and uninterruptible power supply (UPS) units.

As Mr Simon presented a view of the growth based around emerging market connectivity, so Mr Coquio spoke of the prospects for MRS1 in relation the prospective growth in African online services. He said,



One of Interxion's Meet Me Rooms

"Marseilles does not need to be a transit city anymore; it can now be considered a content city, and it is now a gateway to Africa."

Key to this growth is the presence of multiple lading points for telecommunications submarine cables. Marseilles's geographic location makes it a strategically logical option as a city of information and transit to serve Africa, the Middle East and Asia. Mr Coquio said, "Just on the other side of the Mediterranean, we have more than 20mn people waiting to use smart infrastructure."

MRS1 is indeed rapidly growing. There are now more than 70 connectivity providers present in MRS1, all available to be connected via the Meet Me Rooms managed by Interxion. And the number is increasing. Capacity providers installed in Marseilles include not only Seacom but also Bharti Airtel, BICS, Maroc Telecom, Seacom, Tata Comminications, Telecom Egypt, Telecom Italia Sparkle, Tunisie Telecom and WIOCC. Submarine cable systems working through MRS1 include I-ME-WE (India-Middle East-Western Europe), Med Cable Limited, SeaMeWe (South East Asia-Middle East-Western Europe) 4 as well as Seacom. Local fibre routes present at MRS1 include Telecom Egypt.

With such growth in prospect, Interxion intends to build a new facility in Marseilles later this decade, with initial plans in place expansion in the city from 2016. ${\mathfrak C}$

CÂRLE

Une liaison australien, africaine et moyen-orientale

Le premier câble sous-marin direct entre Perth et Djibouti, et les nouvelles possibilités pour le routage de données

ICATEL-LUCENT SUBMARINE Networks, la filiale des réseaux optiques sousmarins d'Alcatel-Lucent, et GoTo Networks, un opérateur et développeur de systèmes de câbles optiques sous-marins, a signé d'un contrat clés en main pour la construction d'une liaison baptisée Australia West Express (AWE), premier câble sous-marin direct entre l'Australie, le Moyen-Orient et l'Afrique.

GoTo Networks est centré sur le développement de nouveaux systèmes de câbles sous-marins pour des marchés nouveaux ou mal desservis. Le groupe est formé de personnes riches d'une longue expérience dans le développement et la mise en œuvre de systèmes de câbles sous-marins.

Alcatel-Lucent est le spécialiste des réseaux IP, de l'accès très haut débit et du cloud. Chaque jour, nous nous engageons à rendre les communications plus innovantes, plus durables et plus accessibles, pour leurs utilisateurs, les entreprises et les pouvoirs publics, partout dans le monde. Alcatel-Lucent Submarine Networks est leader dans les réseaux de câbles sous-marins on domaine en matière de capacité et

La liaison longue de 10 500 km constituera le premier câble sous-marin direct entre Perth et Djibouti, avec une connectivité ouvrant de nouvelles possibilités pour le routage de données en Europe d'installations avec plus de 575 ooo km de câbles et systèmes optiques sous-marins déployés à travers le monde. Des télécommunications traditionnelles aux récentes applications dans les domaines pétrolier et gazier, ASN fournit toutes les composantes d'un réseau de transmission sous-marin mondial en les adaptant aux besoins du client.

Une nouvelle route

Le système AWE couvrira l'océan Indien pour connecter Perth en Australie à Djibouti, au nord-est de l'Afrique, avec une connectivité qui ouvrira une nouvelle route à faible latence vers l'Europe.

La liaison longue de 10 500 km constituera le premier câble sous-marin direct entre Perth et Djibouti, avec une connectivité ouvrant de nouvelles possibilités pour le routage de données en Europe. Cette liaison viendra renforcer la protection du trafic de données et étendre la connectivité haut débit dans des zones nouvelles. Le système devrait être en service fin 2016, avec une capacité de conception maximale de 20 Tbit/s.

Le David Ross Group (DRG), une société de conseil spécialisée, a été retenue par les propriétaires du projet pour les assister dans le développement du système et le lancement de cette nouvelle activité.

Le David Ross Group est spécialisé dans la planification, l'ingénierie, la construction, l'exploitation et la commercialisation d'infrastructures de télécommunication sousmarines en fibre optique à l'international. L'équipe a dispensé ses conseils pour de nombreux projets, représentant un total de 350 ooo km de câbles sous-marins et plus de 50 points d'atterrage sur 6 continents. Son

expertise des marchés mondiaux, associée à son expérience commerciale, technique et de management, permettent d'apporter des réponses concrètes aux défis complexes rencontrés par ses clients.

John Mariano, fondateur et directeur général de GoTo Networks, a déclaré : « AWE va permettre d'offrir des services haut débit à une grande variété de clients et d'entreprises de l'économie australasienne. Ce projet souligne l'importance croissante de l'Europe comme destination du trafic Internet. En nous appuyant sur la capacité d'innovation d'ASN et les technologies de transmission 200 Gbit/s, nous nous positionnons également pour faire évoluer le système et répondre à la hausse du trafic et des applications très haut débit à l'avenir. »

Philippe Dumont, président d'Alcatel-Lucent Submarine Networks, a déclaré : « Le projet AWE intervient à une période d'intérêt accru pour de nouvelles routes internationales capables de transporter de façon fiable des volumes croissants de données, dans un contexte d'augmentation de la demande en accès très haut débit. Nous sommes ravis de travailler avec GoTo Networks sur ce système, qui offrira une diversité de routes câblées inégalée, essentielle pour le routage et la protection du trafic. »

Une plateforme innovante

La solution déployée par ASN reposera sur la plateforme innovante 1620 SOFTNODE et sur l'unité de branchement « R-OADM » pour maximiser la capacité et la flexibilité en utilisant la dernière génération de fibre sousmarine de transmission cohérente (CSF-2). ASN sera responsable du projet de bout en bout, de la conception du système à son installation et mise en service. ©

ASN bat un record dans le domaine des câbles sous-marins

ALCATEL-LUCENT SUBMARINE NETWORKS (ASN) a battu un record dans le domaine de la transmission sous-marine en étendant la portée des systèmes de câbles sans répéteur, ce qui permet d'augmenter la vitesse de transmission à 100 Gbit/s sur plus de 610 km en utilisant une même fibre pour la transmission de signaux et la transmission amplifiée. Cette avancée, réalisée grâce aux

ingénieurs d'ASN vient libérer le potentiel des fibres individuelles habituellement combinées dans un système de câble, afin d'en améliorer significativement la transmission et permettra aux opérateurs de réaliser des bénéfices en matière de coût total de propriété de leurs réseaux. Les projets de câbles sous-marins sans répéteur, portés en majeure partie par des besoins de

connectivité, consistent en la construction de systèmes de câbles sur des distances pouvant aller jusqu'à 500 km sans utiliser de répéteur pour l'amplification du signal. Ces systèmes de câbles sont construits pour offrir une capacité supplémentaire et/ou compléter les réseaux terrestres afin de gagner en résilience, et peuvent offrir une capacité de 25 Tbit/s selon la configuration du système.

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RADIO

Africa poised to be a high-potential market for TETRA

With success stories across the globe, the continent is now ready to move to a mature telecommunications system

ETRA (TERRESTRIAL TRUNKED Radio) is a mature, tried and tested technology with exceptional functionality that is, today, the preferred choice for nationwide roll-outs in a several regions. In Germany, for example, the world's largest TETRA public safety network is nearing completion and, in the Netherlands, the established C2000 TETRA network is seeing renewed investment.

And it's pretty much a global standard with ETSI's role recognised by most countries to the extent that if you wanted to roll out a TETRA network in Sudan, for example, it would be accepted as an international standard, though there are some exceptions, such as China and South Korea, where their own standardisation bodies handle compliance and the like

Delivering secure, reliable and robust critical communications, TETRA technology is in use throughout the world and now represents 24 per cent of the digital technology market for professional mobile radio, globally. The technology achieved record shipment growth of 17 per cent in 2014 in the Europe, Middle East and Africa (EMEA) region alone. *Communications Africa* spoke to members of the critical communications organisation, TCCA, about TETRA's potential in markets across Africa.

"Education is the key to recognising and adopting TETRA as a suitable technology for African economies."

Stats from the MEA region

The biggest sector for TETRA has been public safety with the majority of terminal shipments in recent years bound for that sector. In terms of the number of networks, however, transport is now the biggest sector with many airports, metro systems, railways, bus or by taxi companies all operating their own networks. And while TETRA began life in Europe — still the region with the largest number of TETRA systems operating — the Asia Pacific and South America have been the fastest growing TETRA markets, with the Asia Pacific actually running 25 per cent of all currently-operating networks.

When it comes to the Middle East and Africa (MEA) region, industry research experts IHS project that the industrial, utilities and transportation sectors will all continue to enjoy success using TETRA with over 10 per cent CAGR predicted between now and 2019. After a drop in 2013, IHS has estimated that TETRA shipments from 2014 will be significantly higher, to support the more than 500,000 TETRA users in the region, and this trend is projected to continue.

Representing the TETRA industry across the world is the TCCA, with some of its 160 members very active in the African market. CA also asked a number of TCCA members for their views on the potential of TETRA for Africa and the effect that LTE might have on the critical communications market.

Proprietary and Secure Despite an 'Tangible' LTE Future

UK-based Sepura business development manager Bryan Raath told CA that, "South Africa is the biggest TETRA user in the region comprising public safety, municipalities and large mining organisations. It's the only



images (© Airbus DS) from the funeral of Nelson Mandela in the Eastern Cape rural area in South Africa, where the police had to set up a Tetra system.

country to have deployed TETRA for public safety, whereas in the rest of the continent TETRA has been adopted mainly by the mining sector.

"Education is the key to recognising and adopting TETRA as a suitable technology for African economies. The risk of losing TETRA opportunities to full LTE networks is tangible. Again, this is an educational issue that needs to be addressed, as many users are not very clear about the parameters in which a communication system should be installed. For any organisation in today's world, information security is paramount to protect unwanted eavesdroppers. Only TETRA can fill this gap." Raath added, "TETRA is the only non-proprietary technology available today, which places users in control of their own system, enabling organisations to utilise competitive bidding and ensuring that the correct products and services are delivered at the best rate. Committing to a non-proprietary technology places manufacturers in control of their systems."

Mature and Open Strength

Netherlands-based Rohill has deployed more than 25 TETRA networks in Africa, including in Botswana, Morocco, Nigeria and South Africa ranging from two sites to 60, and from 500 users to 5,000. Most of these networks are currently being expanded or upgraded to the newest generation TETRA networks. Rohill's technical account manager Cihan Altunbay said, "TETRA is basically the only standard growing in Africa. Proprietary standards are occasionally used, but only in the case of special government-to-government projects. Public safety, mining and oil and gas, as well as operated networks, are the major segments for TETRA on the African continent. The majority of networks are in South Africa and Nigeria, due to their advanced industrial development or natural resources.

"Users in Africa have been investigating the migration to broadband," Altunbay continued, "And potential users are currently evaluating the

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adoption of LTE technology. However, it is obvious for these users that LTE is a promising solution for their data communications needs but they need to keep the critical TETRA infrastructure as the reliable communications system for voice and emergency use. For onsite and small regional use in advanced industries, LTE could be deployed as dedicated overlay for those countries where spectrum will be available and the operation requires broadband wireless data."

He added, "The future for TETRA in Africa is very bright; it's a mature open standard and far cheaper and better supported, as well as having more functionality, than its counter-standard APCO25 from the USA. It fulfils an essential need in those markets where there is really a need for reliability, availability and the special functionalities, which TETRA offers as group call up to end-to-end encryption, including multi-slot data."

Can't wait for LTE

China's Hytera has a TETRA network in Lagos, Nigeria, where the company worked with operator, Briscoe Technologies, to build a system with 2,650 terminals and 30 base stations. Among others, Hytera also has a TETRA network in Entebbe International Airport, Kampala, Uganda, and in Sasolburg, South Africa. It supports customers such as Total, G4S, and Arik Air.

Jimmy Jin, Hytera regional marketing manager, told CA, "In terms of LTE, it will be a few years before TETRA and LTE technology will be combined, especially in Africa, and we cannot just wait. TETRA can meet the communications requirement of our clients now, so we'll upgrade our TETRA networks when we need to. In the next four to six years, the main TETRA market in Africa will still be narrowband TETRA or TEDS, though LTE is an inevitable trend. Combining narrowband TETRA for voice and broadband LTE for data may be the future of this industry."

Stating that implementations of TETRA in Africa represent a 'huge leap forward' compared to the old analogue systems, which are still used by the vast majority of public safety bodies in Africa, Boaz Or-Shraga, director of sales Africa, Motorola Solutions, told CA that, "In the last few years we have witnessed a significant transition to advanced digital radio systems, particularly for public safety where TETRA systems are the most advanced and optimal for the purposes of emergency services. We consider Africa as a robust, dynamic, high potential market with opportunity for considerable economic growth, and as a result have many TETRA systems deployed including with the Botswana Police, the Botswana Office of the President, South African Police, Angolan Police, Kenyan Electricity Company, Angola Police and a water company in Angola. Our main customers are governmental bodies and large utility

"The future for TETRA in Africa is very bright; it's a mature open standard and far cheaper and better supported, as well as having more functionality."

companies, including oil and gas. The biggest users include the Botswana Police and Office of the President."

He added that Motorola expects TETRA to continue to serve many countries across the region for many years to come. "We also see the adoption of TETRA increasing in the course of the transition from analogue to digital land mobile radio systems. The use of TETRA is also on the path that can lead gradually to organisations using LTE systems."

Mr Big of the Big Three

Despite ongoing unrest to reach full political stability after the Arab Spring together with renewed terrorist threats and attacks in the region, Nicolas Jotic, head of PMR Sales for Africa in Airbus Defence & Space (formerly Cassidian) said the business potential for TETRA in Northern Africa remains at a high level. He told CA, "The Central African nations are eager to improve their international technology level and moreover have a strong need to increase their global level of security to accelerate their economic development. Those countries are first focusing on telecommunication infrastructure for public safety forces in the field. Southern Africa, with South Africa as 'frontrunner', is catching up with a few delayed or postponed projects. The country is working very hard on improving the overall safety of all its citizens."

Jotic added that the mission-critical PMR market relies on three major proven technologies: TETRA, P25 and TETRAPOL, and whilst his company has all these three standards in its portfolio, he stressed that, "TETRA is, without doubt, the best suited for the African market. We see a huge opportunity for a broader roll-out of smaller 'insular' networks in the first step, covering immediate needs from public security scenarios in cities, airports and harbours, to private industrial operations like oil-field security. As a next step, these networks will then have to be interconnected for nationwide secure wireless communication like the national TETRA BosNet project in Germany." ©

Acknowledgement: Key industry statistics courtesy of IHS.

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COMMERCE Mobile Money

Battling risk in electronic finance

A surge in the subscriber base of the telecom industry coupled with a meteoric rise in mobile-based payments has ushered in a new era of risk and fraud management solutions

HE BOOMING TELECOM market in Africa has revolutionised the economy of the country multi-fold. In the last few years, the enthusiasm for all things mobile has transformed the mobile money landscape and challenged the otherwise conservative financial services industry. Add to this a huge 'unbanked' population. Extremely lucrative and on the rise, telecom operators are cashing in on the growing popularity of mobile money, thanks to M-Pesa.

While the West continues to debate over the many risks involved, several African countries have opened their doors to mobile phone-based-payments. The barriers to entry are relatively lower and mobiles are affordable plus banks don't have to necessarily set up physical infrastructure in remote places in the country.

For instance, more than 50 per cent of the Kenyan GDP has been attributed to its mobile money transactions made through M-Pesa. Launched in 2007 by Safaricom, this mobile phone-based-money transfer and microfinancing service has eaten into the rich-poor divide in more ways than one. But not without its flip side – the increased use of mobile payments has high security risks, such as account information hacking, identity theft, PIN code theft, identity spoofing, money theft, laundering, subscription fraud, bad debtrelated cases and dealer fraud (fake registrations for earning commission).

Controlled risk management

The need for mobile authentication, regulations and identification is at an all-time high as most organisations have disorganised risk and fraud data, varied processes and repositories. For instance, the Minotaur Fraud Management solution, developed by Neural Technologies provides a comprehensive fraud management solution. Be it internal/dealer fraud, IRSF (International Revenue Share Fraud), bypass/SIM box fraud, mobile anomalies, PBX & VoIP fraud, PRS (Premium Rate Service) fraud, roaming fraud, subscription fraud and Wangiri fraud, the Minotaur FMS solution can tackle these and more head-on. In a time when the African market is both buoyant and vulnerable, the lack of a bird's eye view of all the available data cripples preventive action. With an increase in connectivity and capacity and wide penetration

of low-cost smartphones, mobile money brings with it the need for fraud and risk management. Luke Taylor, CEO at Neural Technologies, said, "Our latest offering MiRadar is a business intelligence solution which is cost-effective, quick to implement and simple. It's a repository for management monitoring, planning and decision-making and assimilates information from various sources. This risk-related data is then passed on to organisations for seamless reporting of risk metrics and KPIs. In fact, MiRadar can also be used to generate visual controls and dashboards, provide up-to-date reference data for look-up and link analysis and facilitate advanced analytics."

Formed by a group of scientists in 1990 to provide effective and innovative fraud and risk management solutions, Neural Technologies aims to help organisations increase their bottom line profit by mitigating risks. With expertise in application risk, fraud, credit risk, customer attrition, collections and revenue assurance, the Minotaur Fraud Management solution has been a huge boost for the Safaricom customer base. Given the ever-increasing crime rates, identity fraud and thefts and the constant demand from law enforcement, government agencies and tax departments for confidential information about customers. Neural Technologies' Enforcement Agency (LEA) module has been quite a hit. It helps organisations handle requests from agencies in a secure manner, eliminating the need for a dedicated resource. Confidential storage of actual requests and responses, a cross-charging reporting platform, legal auditing and allowing authorised personnel to scan requests and approve or reject them are some of the additional benefits.

Luke is of the opinion that the 'Internet of Things' will be the next big game changer for the risk management industry and aims to develop solutions to counter the security threats faced by countless Internet users every day. Given that India and China have the largest internet markets in the world, thanks to their population figures, Luke talks of his expansion plans.

"We are bullish about opening offices in India and China very soon to provide the highest level of security to all the Internet users in these countries. Neural Technologies has been in the industry for 25 years we cannot afford complacency. Technology waits for nobody and does not respect tradition - it appreciates only innovation." Taylor said. To establish their international presence and reiterate the need for comprehensive fraud and risk management solutions, Neural Technologies will be a part of the GSMA Fraud Forum/Security Group, Spain in February, GSMA Mobile World Congress, Barcelona in March, TM Forum, Nice in June and the Informa Revenue Management & Fraud Prevention conference, Brazil in August this year.

As more and more people today benefit from the use of technology, for monetary transactions and transmission of confidential data, the need of the hour is of security and confidentiality. As we move towards a cashless future, prevention is always better than cure. ©

Infobip adds inbound and outbound voice communications to its mobile services cloud

A provider of mobile services to IT companies and developers, Infobip has launched an enterprise-grade suite of cloud-based voice applications.

Infobip Voice lets enterprises and developers quickly and easily add voice capabilities to their existing software through an API-powered cloud platform, avoiding hardware costs and complex system integration. The service harnesses Infobip's worldwide connectivity to hundreds of mobile operators, and was developed using in-house expertise gained from Infobip's heritage in providing mobile services to the banking and technology sectors.

By introducing Voice to its mobile services cloud, Infobip is now in the unique position of offering a complete mobile platform for enterprises and app developers to help increase security and customer engagement. With support for all major mobile services, including SMS messaging, push notifications and direct carrier billing, Infobip provides developers with a wide range of tools designed to drive reach, monetisation, and user satisfaction.

"Infobip is committed to providing a complete communications service platform for our enterprise and developer customers," said Silvio Kutic, founder and CEO at Infobip. "As telecoms services are increasingly becoming IP-based, introducing voice to our existing mobile services cloud was the next logical step."

Mobile Money COMMERCE

L'évolution des moyens de paiement

WorldRemit apporte à la Gambie des transferts d'argent simples et économiques, suite à un accord avec MTN sur un partenariat important de mobile money

A SOCIÉTÉ DE transfert d'argent en ligne et sur mobile, WorldRemit, a annoncé avoir lancé des services en Gambie. Fondée par Docteur Ismail Ahmed, qui a été nommé « l'homme qui change l'industrie de virements » par la BBC, WorldRemit rend pratique, rapide et économique le transfert d'argent à des amis et à des membres de la famille à l'étranger.

WorldRemit a reçu US\$40m d'investissement d'Accel Partners dans un premier tour de financement en 2014 et a reçu US\$100m dans un second tour de financement en 2015 mené par Technology Crossover Ventures. Le siège global de WorldRemit est à Londres, RU et a des bureaux régionaux aux Etats-Unis, au Canada, en Australie et en Nouvelle-Zélande.

Autour des virements internationaux

Les clients dans 50 pays peuvent utiliser WorldRemit à tout moment, de partout à partir de leur smartphone, tablette ou ordinateur pour envoyer de l'argent à la Gambie. Les bénéficiaires peuvent aller chercher l'argent tout de suite dans les agences : Easy Financial Services, MJ Financial Services, Guarantee Trust Bank. TC Bureau de change et Yonna Forex.

Il est estimé que les virements internationaux ont contribué US\$191m à l'économie en Gambie en 2014, selon la Banque mondiale. L'Espagne, le Royaume-Uni et les Etats-Unis constituent les pays principaux en ce qui concerne le transfert de fonds vers la Gambie. Jeff Pietras, le vice-président du développement du produit chez WorldRemit a dit : « WorldRemit transforme l'industrie de transfert d'argent avec son service en ligne et sur mobile. Des gens autour du monde peuvent envoyer de l'argent de manière instantanée vers la Gambie avec quelques touches d'un smartphone et ils profitent de nos prix transparents et justes. »

Selon VentureBurn, WorldRemit, « apprend comment réussir en innovant pour les clients

Il est estimé que les virements internationaux ont contribué US\$191m à l'économie en Gambie en 2014, selon la Banque mondiale



Ismail Ahmed, Fondateur et PDG, WorldRemit



Jeff Pietras, le vice-président du développement du produit chez WorldRemit

dans des pays en développement. » En février 2015, WorldRemit a levé US\$100m dans un tour de financement mené par Technology Crossover Ventures.

Au début de 2015 WorldRemit, le service des transferts de fonds en ligne et MTN, la société de télécoms se sont mis d'accord sur un partenariat global qui permettra aux clients de WorldRemit d'envoyer de l'argent de manière instantanée aux clients utilisant le service mobile money de MTN. Cet accord a étendu la position de WorldRemit comme leader mondial de transferts de fonds à des comptes mobile money, particulièrement à une période où cette technologie connaît un développement rapide, surtout en Afrique.

MTN accorde une grande importance à leur service de mobile money et ce partenariat avec WorldRemit renforce leur position quant aux transferts transfrontaliers d'argent.

Ismail Ahmed, fondateur et PDG de WorldRemit a dit « mobile money est en train de remplacer rapidement les espèces comme moyen de réception d'argent de proches à l'étranger. Le partenariat entre WorldRemit et MTN permet à nos clients autour du monde d'envoyer instantanément de l'argent aux utilisateurs de MTN mobile money. En plus d'être rapide et pratique, MTN mobile money touche des millions de gens qui ne possèdent pas de compte bancaire et ainsi leur donne accès à une gamme de services financiers intéressants, tels que des systèmes d'épargne et d'assurance. »

Le stratégie de virement

Actuellement, il y a 22.2 million d'utilisateurs de mobile money de MTN dans 16 pays africains, dont le Bénin, le Botswana, le Cameroun, le Congo, (la Chypre), le Ghana, le Guinée-Bissau, la République de Guinée, la Côte d'Ivoire, le Libéria, le Nigeria, le Rwanda, l'Afrique du Sud, le Swaziland, l'Uganda et la Zambie. Pour lancer le partenariat, les opérations de MTN en Uganda, au Rwanda et en Zambie seront ajoutées à la liste d'options de recharge pour téléphone portable de WorldRemit. D'autres pays seront ajoutés peu après.

« Le partenariat avec WorldRemit est un pas important dans notre cheminement visant à rendre possible le transfert d'argent au-delà des frontières. Notre stratégie de virement place le client au cœur de toute offre de MTN et, en collaborant avec WorldRemit, nous avons l'intention d'étirer à nos clients le côté pratique de mobile money de MTN, » a dit Pieter Verkade, Directeur Commercial du Groupe MTN.

Le service mobile money de MTN permet à ses utilisateurs d'effectuer des transferts d'argent locaux et internationaux, de payer des factures, d'économiser de l'argent avec leurs portefeuilles électroniques qui génèrent des intérêts, d'acheter des recharges pour des téléphones portables et d'accéder à une gamme de produits financiers portables. Plus de 50% des transferts en Afrique envoyés à travers WorldRemit sont reçus sur des comptes de mobile money ou comme des recharges de téléphone portable. ©

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SATELLITE ICT

A partnership for development

NSSLGlobal and Telplus Communications Ltd join forces to deliver a new, wide-reaching ICT platform

MERGING ECONOMIES SUCH as Zambia often encounter limitations regarding the provision of a robust platform for information and communications technologies (ICTs), making the conduct of business, especially with external markets, a difficult task. This is where reliable, and efficient 24/7 connectivity becomes a 'must-have' in today's competitive marketplace. When communication flows like clockwork, the conduct of business becomes an easy task, making success attainable.

There is a ray of hope on the horizon for Zambian ICT, ushered in by the partnership between NSSLGlobal, a British-based satellite communications company, and Telplus Communications Ltd, a local firm and newcomer to the country's telecommunications scene.

The two organisations agreed a deal in September 2014 to give a new lease of life to the country's ICT sector, planning platform coverage in remote and rural areas where GSM solutions have either limited or non-existent coverage.

Choosing a strategic partner

Outlining the work of NSSLGlobal to *Communications Africa/Afrique* in a recent interview, the company's business development manager for global government & enterprise, Steve Tunks, said the firm has 13 offices and teleports around the world, providing a 24/7 helpdesk service to its customers across the mining, media, maritime (commercial and superyacht), government and financial sectors.

"Africa is an interesting market to us with various opportunities in our line of business. Finding a strategic partner is not an easy task. We identified Telplus as a company we could work with and offer knowledge and technology transfer to help them grow their business," said Tunks.

"Zambia is landlocked in the midst of eight countries, thus it is strategically located and ideally stationed to expand throughout the



Africa is a growing market for ICT firms, with Zambia well-placed to take advantage of that fact (Photo: IICD)

SADC region. We are pleased to offer our expertise and contribute to the development of the ICT sector in the country and beyond," Tunks added.

Telplus Communications CEO, Chim Moore, said, "The knowledge transfer from a top-notch satellite provider is creating a lot of confidence in our employees to enable them deliver to our clients. The skills transfer that has already taken place is amazing."

"Telplus are a one-stop-shop for single and multiple users. We want to reach places where mobile service providers have not penetrated. We would like to cover these areas. For instance, ICT can help in elections, especially in areas where there is no GSM network," explained Moore.

The agreement which Telplus and NSSLGlobal signed in September 2014 culminated in the launch of Telplus Communications on 7 October 2014 in Lusaka, officiated by the minister of transport, works, supply and communications, Yamfwa Mukanga.

Expansion through stability

Mr Tunks is optimistic that the knowledge and technology transfer will benefit Zambia and its neighbours. Asked what attracted NSSLGlobal to the Zambian market, he said the country's political and financial stability was the key factor, as these ingredients are vital in the success of any business undertaking.

Moore said Telplus was already supplying satellite communication to several defence forces that are deployed on UN peacekeeping missions, while plans are also being drawn up to expand its services to other sectors in the near future.

"We have had various discussions with the government to outline our intention to roll out ICT platforms in rural areas. We can cover the gap and provide voice and data services immediately," Tunks pointed out.

Moore paid tribute to the government and the regulator, Zambia Information and Communications Technology Authority (ZICTA) for the support the company has enjoyed since its establishment.

"We are honoured to have partners like NSSLGlobal and Inmarsat. We really appreciate what they are doing for us as we roll out in Zambia and other countries in the region," Moore added.

On future plans, Telplus is keenly following the construction of 650 health posts by the government throughout the country as it sees this as an opportunity for the delivery of ICT services.

Speaking at the launch, Mukanga reaffirmed the government's commitment to the development of the national broadband strategy, with the aim of providing ICT services that are affordable and competitive.

Headquartered in Surrey, England, NSSLGlobal is an independent service provider of satellite communications and IT support, committed to delivering high-quality voice and data services to customers anywhere in the world, regardless of location or terrain.

Along with NSSLGlobal's world-class VSAT network, the company brings together the best-in-class satellite solutions from key market providers such as Inmarsat, Thuraya and Iridium, to offer options across C-, L-, Ka-, and Ku-Band networks.

Telplus is a Zambian firm established in 2013 with the primary focus of providing satellite equipment solutions that allow for uninterrupted and excellent connectivity. ${\mathfrak C}$

Nawa Mutumweno



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.



New equipment for broadcast engineers at NAB

Innovations for broadcasters have taken unexpected turns, with machines such as UAVs set to play a big role alongside high-definition products

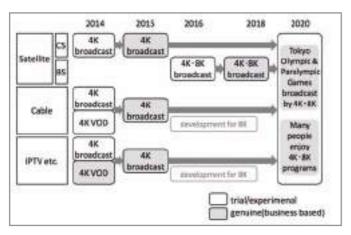
OU LIVE, BREATH and eat this stuff...crave more' was the slogan chosen by the US National Association of Broadcasters to promote its 69th annual engineering conference in Las Vega, in the USA. The conference and its parallel exhibition have long been a useful guide to where the television and radio business are heading. This year's was no exception.

One notable development was an upsurge in the promotion of remotely controlled aerial cameras. These have long been held back by their very short flying times, typically 5 to 7 minutes before requiring recharge. One exhibitor on the NAB Show floor (DJI) claimed a significantly longer duration of 20 minutes or more (5,200 mAh battery) for its Phantom 2 quadcopter. This is offered complete with tiltable 1080p 30 fps camera and a 720p return-video feed at a hobbyist price level. An Apple iPhone can be used as a viewfinder.

The push towards higher resolution television continues to be a key theme at NAB. In 1979, Japanese broadcaster NHK initiated the advance from 4:3 aspect-ratio 525/625-line standard-definition into 16:9 1920 x 1080 pixel (nominally 2K) high-definition. NHK has spent several years promoting 7680 x 4320 pixel (nominally 8K) full-ultra-high-definition as a potential standard for Japan. The rest of the world is meanwhile contemplating 3840 x 2160 pixel (nominally 4K) as an intermediate UHD standard until such time as full UHD becomes seriously practical and affordable. An exception is the film industry which currently defines 4K as 4096 x 2160 pixels.

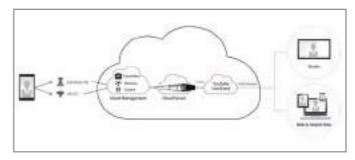
Transitions to the next generation

Hitonari Nakada (Head of Technical & Engineering Department, Next Generation TV & Broadcasting Promotion Forum, Tokyo) explained the timeline Japanese broadcasters and equipment manufacturers are currently working to in their adoption of 4K and 8K. Figure 1 shows this in the context of satellite, cable and IPTV delivery. 4K plays a significant role as an interim format, as did 720p in the transition from standard-definition to high-definition. Figure 1.



Bogdan Frusina (CTO of Dejero) addressed a theme currently on the mind of many broadcasters in his paper 'Video contribution management in the cloud'.

"For recent election coverage in Europe, one national broadcaster adopted the cloud video server approach to provide comprehensive and up-to-the-minute regional and countrywide news coverage. The network equipped over 30 field reporters with iOS streaming applications running on their iPhones, which enabled them to simultaneously stream live updates from every regional polling center to cloud servers and then deliver the content to a dedicated YouTube channel. In the studio, the network's on-air news team was able to monitor all streams on a large video wall and quickly choose a live stream to broadcast to air. Figure 2.



"In this manner, the network was able to stream content from each location online and directly to a mainstream broadcast audience simultaneously – a feat that would have been difficult, if not impossibly expensive and inefficient, to accomplish using a traditional broadcast infrastructure. It's easy to appreciate the cost savings when you compare a single roving reporter carrying an iPhone to a large and complex OB vehicle with a microwave or satellite link. On the receive side, the network was able to broadcast live streams without requiring a physical encoder for each stream."

Content delivery

'Ensuring video quality in an IP video delivery system' was the subject addressed by Göran Appelquist (Edgware AB).

"In 2010 a new streaming technology was introduced by Move Networks. Being based on HTTP, this technology could leverage the existing content delivery networks (CDNs) to deliver premium video quality over the internet. The use of HTTP also made it possible to traverse firewalls and gateways, without requiring configuration of these devices. This enabled new services like Netflix and Hulu, which were content aggregators without any network infrastructure. Since then a number of streaming formats based on this concept have been introduced, e.g. Microsoft Smooth, Apple HLS, Adobe HDS and MPEG-DASH. Most of the formats in use today are proprietary, controlled by a single company. However, much standardisation effort has been put into the MPEG-DASH format, with the hope that this will eventually replace the proprietary formats. These technologies turned out to also be a good fit for the smartphones, tablets and connected TVs that were introduced in the same time frame.

"Even though HTTP-based streaming has experienced a tremendous success over the last five years, the initial hope that existing HTTP delivery infrastructure, for example CDNs which are not video aware, could be used without change turned out not to be true. Today video

awareness is being built into the delivery systems, in order to increase the end user experience and optimise the use of the networks, and more is likely to come.

"HTTP adaptive bitrate technology offers some really attractive advantages over the traditional UDP-based systems. The optimum video quality will now be much more dependent on the distance (round-trip time) between the source and the client.

"With TCP being unicast only, live TV streams have to be delivered using unicast, which is significantly less efficient than the multicast technology that is available in traditional IPTV systems. Every single user will get a unique stream that has to pass the network from streaming server to end user, instead of sending one copy between each aggregation point.

"Control of bandwidth usage is now handed over to the clients, by letting them select the quality level to request based on the bandwidth measured at each client. There is no guarantee that clients behave in a fair or predictable way when congestion occurs. As a result you may end up with oscillating quality selections or unfair static allocation of bandwidth between clients sharing some network bottleneck.

"The final decision on what quality to use is up to the clients, but a network operator can make sure the clients get the best possible network conditions. It is then important to make sure the available resources are used in an optimal way.

"At a minimum, video traffic should be prioritized over non-critical heavy traffic, such as file transfers. Otherwise the client will just notice a lower available bandwidth and decide to switch to a lower video quality.

"Using multicast to push live streams to edge caches will reduce the impact of network latency on available bandwidth, by using UDP for transport, making it easier to deliver high-bitrate streams. End-to-end latency is also typically reduced when using multicast, which could be very important for some live streams, such as sport."

Prototype players

Chris Hughes and Mike Armstrong (BBC) outlined a system for 'Automatic retrieval of closed captions for web clips from broadcast TV content':

"In the UK the BBC's video on demand service, known as iPlayer, provides captioning for a minimum of 98% of the programmes available, but less than 0.1% of the video clips taken from broadcast programmes on the BBC websites are available with closed captions. It would be prohibitively expensive to have all this content captioned manually. However, much of this content has been taken from footage that has been, or will be, broadcast on linear BBC TV channels and all BBC programmes are provided with captions when broadcast.

"We have built a prototype system, which successfully demonstrates the practicability of automatically providing captions for web clips that have previously been captioned for broadcast. This system functions entirely independently of the television production and broadcast chain using an off-air archive. In the case where the broadcast captions were of high quality we have shown that this process provides accessibility with little need for human intervention. Where the captions were created live to accompany a broadcast and were affected by delay and errors the system can provide improved captions, with minimal editorial intervention.

"Our process would be significantly more cost effective than creating the captions from scratch. Only in the case of the remaining clips, which our process cannot find, would new captions need to be made. If the clip has not been broadcast then under the new FCC rules the captions would be optional. Only in the cases where the clips have been heavily edited from broadcast material would provision of new captions would be mandatory."

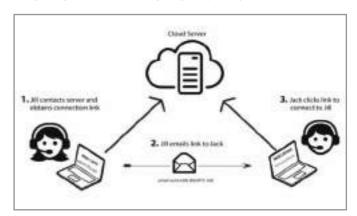
Tom Hartnett (Comrex) explored the concept of web-based real-time communication) is his paper 'Using real-time web audio to replace telephone call-ins on-air'.

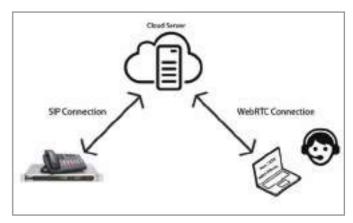
"In my 2011 paper, I described a hardware product that was equipped to take calls from Skype users, conference them with callers of other sorts, and provide management functions suitable for the studio environment. Shortly after that paper was delivered, Skype changed ownership and within a few years decided to deprecate the program allowing OEMs to implement the protocol. These are the risks we take with closed, proprietary systems.

"A wide range of SIP applications for mobile phones have come on the scene in recent years. Examples are Media5fone, CSIPSimple, and Bria. These are generally free or low cost. One app stands out in that it meets many of the criteria required to be adopted en masse by broadcasters:

*Free of cost; Available for both Android and iOS; Actively being maintained and upgraded; Excellent, low delay audio quality.

"This app, called Linphone, is available on both the iTunes and Google Play stores free of charge. Figures 3 and 4.





"One of the reasons Linphone is so powerful is its inclusion of a new type of audio encoder. Named Opus, the encoder's primary claim to fame is that it was designed and implemented to be free of all existing patents regarding audio coding. This makes it easier to provide apps and programs utilizing Opus free of charge to the end user.

"Opus is actually a 'hybrid' codec consisting of two distinct encoding modes. For speech at relatively low bitrates, Opus emulates the encoder used in Skype, known as SILK. For other audio, Opus will switch to a general (meaning not voice-specific) audio encoder known as CELT. By combining these two techniques Opus offers the best of two powerful coding techniques, with each mode compensating for the lacking of the other."

The NAB conference and exhibition return to the Las Vegas Convention Center April 16-21, 2016 ©

David Kirk

BROADCAST

Buyers' Guide 2015

The guide to the major international manufacturers in all areas of broadcasting and their agents throughout Africa.

Classifieds - Manufacturers listed under type

Suppliers - With Agents' names

Local Agents - Index

Ce guide contient une liste des principaux fabricants internationaux de matériel de l'audiovisuelle ainsi que leurs distributeurs en Afrique.

Liste des produits avec fabricants par produits

Liste des fabricants avec noms des distributeurs en Afrique

Liste des distributeurs locaux

Classifieds

Amplifiers

Kathrein SA (Pty) Ltd.

Antenna Positioners

PR Industrial

Antennas - Industrial

Amphenol Corporation Kathrein SA (Pty) Ltd.

Audio - Other

Ghielmetti AG

Automation and Control

Imagine Communications
Netia

Batteries and Chargers

Aztec

Broadcast Facilities Build & Operation

Ghielmetti AG

Globecast France

Onlime

PCCW Global Ltd.

Singapore Telecommunications Ltd.

Telemedia (Pty) Ltd.

Cables & Cable Equipment

Amphenol Corporation Kathrein SA (Pty) Ltd.

Colour Correctors

Axon Digital Design

Computer Systems & Equipment

Spatial Technologies Africa (Pty) Ltd.

Connectors

Amphenol Corporation Kathrein SA (Pty) Ltd.

Consultancy

Spatial Technologies Africa (Pty) Ltd.

Decoders

Harmonic

Digital Glue / Distribution Cabinets

Axon Digital Design

Digital Video Equipment

African Union Communication (Pty) Ltd. Harmonic

Distribution & Links

African Union Communication (Pty) Ltd.
AFRIKANET Oxford Consultech UK Ltd.

Globecast France

MEASAT Global Berhad

PCCW Global Ltd.

Singapore Telecommunications Ltd.

Down Converters

AnaCom Inc.

Axon Digital Design

Euteldat

Editing Systems

Imagine Communications

Netia

Spatial Technologies Africa (Pty) Ltd.

Encoders/Decoders

African Union Communication (Pty) Ltd.

Harmonio

Imagine Communications

Telemedia (Pty) Ltd.

Encryption Equipment

Telemedia (Pty) Ltd.

Filters

Kathrein SA (Pty) Ltd.

Generators

Aztec

PR Industrial

Graphics Systems

Spatial Technologies Africa (Pty) Ltd.

Headend Equipment

African Union Communication (Pty) Ltd.

Harmonic

Imagine Communications

Newtec Cy n.v

Telemedia (Pty) Ltd.

LNBs

AnaCom Inc.

OB Vans

Globecast France

PR Industrial

Other

PR Industrial

Spatial Technologies Africa (Pty) Ltd.

Radiocommunications

AFRIKANET Oxford Consultech UK Ltd.
Netia

Satellite Communications

African Union Communication (Pty) Ltd.
AFRIKANET Oxford Consultech UK Ltd.

Amos-SpaceCom

AnaCom Inc.

Applied Satellite Technology SA (Pty) Ltd.

Cobham

Comtech EF Data

Globecast France

Hellas Sat Consortium Ltd.

Intelsat

MEASAT Global Berhad

Milano Teleport S.p.A.

Newtec Cy n.v

Onlime

PCCW Global Ltd.

Russian Satellite Communications

Company

Singapore Telecommunications Ltd.

Telemedia (Ptv) Ltd.

Thaicom Public Co. Ltd.

World Telecom Labs

Satellite Receivers

AnaCom Inc.

Comtech EF Data

Harmonic

Newtec Cy n.v

Rascomstar-QAF

Set Top Boxes

Infomir LLC

Standards Converters

Axon Digital Design

Studio Furnitures

Ghielmetti AG

Telecommunications

AFRIKANET Oxford Consultech UK Ltd.

Amos-SpaceCom

AnaCom Inc.

Applied Satellite Technology SA (Pty) Ltd.

Cobham

Eutelsat

GL Communications Inc.
Imagine Communications

Infomir LLC

Intelsat

MEASAT Global Berhad

Newtec Cy n.v

Onlime

PCCW Global Ltd.

PR Industrial

Russian Satellite Communications

Company

Singapore Telecommunications Ltd.

World Telecom Labs

Test & Measurement

Ghielmetti AG

GL Communications Inc.

Transmitters and Antennas

A C 1

Applied Satellite Technology SA (Pty) Ltd.

Turnkey Systems

African Union Communication (Pty) Ltd.

Uninteruptible Power Supplies

Aztoc

Video - Other

Ghielmetti AG

Intelsat
MEASAT Global Berhad

Netia

Onlime

VSATs

AFRIKANET Oxford Consultech UK Ltd.

Amos-SpaceCom

AnaCom Inc.

MEASAT Global Berhad Newtec Cy n.v

PCCW Global Ltd.
Russian Satellite Communications

Company

Singapore Telecommunications Ltd.

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Suppliers

ABS



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Web: www.aucom.co.za E-mail: admin@aucom.co.za

African Union Communications (Pty) Ltd has over 25 year's experience in Broadcast and Satellite Distribution Networks (DTT & DTH) and provides an End to End Turnkey Solutions for Digital Broadcast and Satellite systems in Africa. Focusing on Consultation, System Design, System Integration, Installation and Support.

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Eutelsat is one of the world's leading and most experienced operators of communications satellites. The company provides capacity on 34 satellites to clients that include broadcasters and broadcasting associations, pay-TV operators, video, data and internet service providers. enterprises and government agencies.

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Imagine Communications Corp. is a global leader in video infrastructure, advertising systems and workflow management solutions serving the media networks, broadcast stations, digital media, communication service provider and enterprise markets spanning 185 countries. Today, nearly half of world's video channels traverse through more than 3 million Imagine Communications products deployed around the world. Imagine Communications provides the most complete end-to-end video solutions and is innovating to deliver the most advanced IP, cloud-enabled, softwaredefined network and workflow solutions in the world.

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Infomir is a company with years of experience, specializing in manufacturing devices for Interactive television service providers.
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The Company's key feature is a full product cycle: product design, industrial design, software development, manufacturing, integration assistance and worldwide service support.

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The Intersputnik International Organization of Space Communications was established 15 November 1971. Today, Intersputnik has 26 member states in practically all parts of the world, from Latin America to South-East Asia and from Europe to Africa.

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Milano Teleport S.p.A. operates the largest independent teleport in Italy. Founded in 1997 its business spans from DTH and DTT TV Broadcasting to Broadband Wireless and Maritime services worldwide. For the Media & Broadcast Industry, Milano Teleport provides Satellite Services Worldwide (DTH, DTT, Contribution Links, Turn Around Services and Video over IP Connections) leveraging its modern Uplink Facility and its massive fiber connections with European main carriers.

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PRAMAC is an Italy-based company engaged in the manufacturing of the power generation equipment and materials handling equipment. The Company divides its activities into two business sectors: Power Systems and Power Engineering, which comprises generators for electric power, including low voltage portable generators and medium and high voltage generators.

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RascomStar-QAF is a pan-African satellite operator mandated by the pan-African governmental organization RASCOM (Regional African Satellite Communication Organization), which is a convention of 45 African countries acting through their Telecommunication Ministries to support its project. RSQ operates the RASCOM-QAF1R (RQ1R) satellite, successfully launched in August 2010 and is fully operational for an in-orbit lifetime of 18 years. The RQ1R satellite transponders bear four categories of managed services: GSM Extension Service (R*GES) based on low cost easy to install GSM integrated site

Telephony Extension Service (R*TES) based on low cost easy to install small Ku-band terminals

High Speed Internet Service (HSI) is an optional service for R*TES and R*GES to provide broadband connectivity Backbone Connectivity Service (R*BCS) connecting gateways (any to any) in Africa

In addition to Managed Services, RSQ can lease raw capacity:
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The Russian Satellite Communication Company (RSCC) is the national satellite operator with global coverage and 12 satellites, located in GEO from 14 West to 145 East. The satellite footprints cover the territory from the Eastern coast of America to Australia. RSCC owns five teleports and its own optical fiber infrastructure.

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SUHD TV refreshes entertainment with re-mastering engine and smart functions

SAMSUNG ELECTRONICS HAS announced an extensive line-up of SUHD TVs to the South African market, setting a new standard and elevating the viewing experience to new levels.

Samsung reserves the "S" identification for its most premium flagship products, which signify a true leap forward in technology. As the leader in the industry, Samsung is excited to extend the prestigious "S" identification to its latest premium TV line, the SUHD TV. It is developed to excite all of the senses, with Sensational Picture, Seamless Interaction and a Stylish Curved design.

The development celebrates a major milestone in the UHD era, delivering on stunning contrast, striking brightness and spectacular colour. Its exciting features and various Smart functions, are powered by Tizen, giving viewers easy access to their favourite content. "Our innovative heritage and spirit continue to push the boundaries of the home entertainment experience to new possibilities," said Matthew Thackrah, deputy



Samsung Electronics introduces SUHD TVs to South Africa

managing director and head of consumer electronics at Samsung Electronics SA. "Regardless of the content source, Samsung provides leading picture quality in the industry and will continue to do so with this latest innovation.

The product utilises Samsung's proprietary, ecofriendly nano-crystal technology, which provides viewers with 64 times more colour expression than conventional TVs. This is supported by the intelligent SUHD re-mastering engine, which automatically analyses the brightness of images to minimise additional power consumption while expressing ultimate contrast levels, producing images with much darker blacks and an elevated brightness 2.5 times brighter than usually.

When Samsung introduced the curved form-factor in 2013, it dramatically improved the consumers' engagement with the device. Taking cues from contemporary art and architecture, it was designed and enhanced with many modern and minimalist highlights. Samsung SUHD TV (JS9500) features Samsung's Chamfer bezel framework, adding more depth to the screen, with the elegant frame making the TV look like a piece of art when mounted on the wall. The soft, textured shirring pattern on the back ensures that the TV maintains its stylish edge from any angle, making it appear to display a soft, undulating fabric.

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Anritsu enables remote spectrum monitoring

ANRITSU COMPANY HAS introduced Web Remote Tools for its Spectrum Master MS2720T handheld spectrum analyser that allows the instruments to be controlled from any web-enabled device, including laptops, tablets, and smart phones, over an Ethernet link. Web Remote Tools gives field technicians greater flexibility when conducting measurements and makes it more time- and cost-efficient to conduct RF spectrum monitoring, as well as test Remote Radio Heads (RRUs) and other inaccessible radio units at 3G and 4G base stations.

Once configured, a field technician's laptop, tablet, or smart phone can be used to control the Spectrum Master handheld spectrum analyser, download files, or view monitoring results. The easyTest feature of Spectrum Master simplifies complex spectrum monitoring requirements and allows for one-button measurement sequences directly from the web-enabled device. Transferring test results is simplified with Web Remote Tools, as all instrument files, directories and sub-directories can be downloaded as a zip file.

Setup is very quick with Web Remote Tools. Short-range links of up to 300 feet can be created using a pocket Wi-Fi router. Long-range links can be easily established via wired backhaul, as well. Up to five traces per second can be

updated using the Spectrum Master fast mode feature, for unprecedented responsiveness.

Multiple Spectrum Master handheld spectrum analysers can be controlled with one device using Web Remote Tools. Microsoft Windows, Android, iOS, and Linux operating systems are supported. The device must have a current version of either Chrome or Firefox to use Web Remote Tools.

Intelsat's future-proof delivery service

AS MEDIA CONSUMPTION habits change and viewers demand more content be delivered across multiple devices, media companies are facing pressure to quickly upgrade their networks to meet the demands of a TV-everywhere and increasingly over-the-top (OTT) society. However, delivering content in new ways to multiple devices and in different formats is incredibly complex, and upgrading legacy networking systems can be a costly undertaking.

Intelsat SA, which provides satellite services, expands its media services offering with the introduction of IntelsatOne® Prism, a next-generation, IP content distribution platform and managed service that is fully integrated with Intelsat's powerful global satellite fleet and IntelsatOne terrestrial network. IntelsatOne Prism's fully automated, converged IP-based platform allows media customers to conduct multiple content transmissions via one platform, including linear video, file transfer, VoIP, Internet access and data exchange. It enables media customers to seamlessly implement digital media networking using legacy assets, improve bandwidth management with minimal investment and simplify overall content delivery and operational networks.

"The media landscape is changing rapidly, with video and data services entering a period of unprecedented convergence," said Peter Ostapiuk, head of media product management at Intelsat. "In order to address the changes occurring in their business models, our media customers want services that support their needs today, but also are adaptable to future formats and standards that may be deployed in the future. IntelsatOne Prism's IP technology supports services that provide media customers with the perfect evolution that will extend media IP networking to the sky, delivering reliable, high-quality content contribution and distribution regardless of location or device.

Siemon launches LightHouse for fibre cabling

GLOBAL NETWORK INFRASTRUCTURE specialist **Siemon** has launched its new LightHouse brand in Africa; an extended portfolio of advanced fibre cabling solutions for data centres, LANs and intelligent buildings. The LightHouse name aligns the company's established range of end-to-end fibre cable and connectivity systems with a wide array of new product innovations, to create a

comprehensive choice of highperformance fibre, designed to support nearly any network infrastructure.

Anritsu's Spectrum Master

provide excellent flexibility

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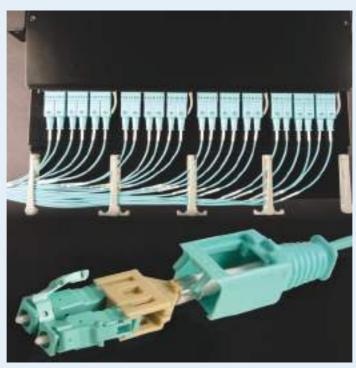
handheld spectrum analysers

According to Siemon, LightHouse takes advantage of competitive pricing levels on the most commonly used fibre cable and connectivity systems, meaning that this comprehensive fibre portfolio is unmatched in terms of total customer value.

Offering a wide choice, LightHouse includes configurable end-to-end Plug and Play systems with MTP, LC and SC connectivity, an expanded multimode and singlemode fibre cable offering and an extensive fibre jumper and pigtail line, including Siemon's innovative LC BladePatch jumper with push-pull latch perfect for high density applications. Timesaving field terminated connectors are part of the portfolio, plus easier fibre management options, ruggedised fibre, quick splicing and

high performance fibre solutions for POL/PON.

Also, within the LightHouse expanded range are Siemon's latest fibre innovations, including its LightStack™ ultra high-density Plug and Play system supporting up to 40/100Gb/s applications and providing best in class cable management and user-friendly accessibility.



LightHouse includes configurable end-to-end Plug and Play systems

Introducing the new LightHouse brand, Robert Carlson, vicepresident of global marketing explains; "Siemon has a strong reputation for quality and copper technology leadership which often overpowers awareness perception about its place in the fibre market. Whilst it's true that our company is truly expert in copper technology, Siemon is also a fibre technology leader. We have over 20 years of proven expertise in providing world-class fibre technology and we continue to focus a significant percentage of our research and development investment on the innovation of exceptional fibre products and systems. The new Lighthouse name will be lighting the way to Siemon's advanced fibre solutions and providing a focal point for those looking for a choice of high performance fibre products in addition to copper for real lifetime value."

Newtec's new MCX7000 multi-carrier satellite gateway

SATELLITE COMMUNICATIONS EQUIPMENT specialist **Newtec** offers its latest multi-carrier satellite gateway, the Newtec MCX7000 – which was displayed for the first time at the 2015 NAB Show – offers a multitude of benefits, including increased bandwidth efficiency of up to 51% for distribution to TV and radio towers and head-ends, and increased service availability, as well as OPEX and CAPEX savings.

Compatible with the Newtec Dialog® multiservice broadcast platform, the Newtec MCX7000 Multi-Carrier Satellite Gateway also features multistream, Newtec's efficiency-boosting Clean Channel Technology and Equalink 3, a new linear and non-linear predistortion technology designed to compensate for the effects of distortions caused by the satellite's filters and amplifiers. The additional throughput this provides equates to up to 15 percent more TV channels in a DTH carrier.

Serge Van Herck, CEO of Newtec, said, "The Newtec MCX7000 multi-carrier satellite gateway represents another milestone in the



The Newtec MCX7000 multi-carrier satellite gateway

extension of our modem capabilities beyond single carrier support. The easily upgradeable nature of this DVB-S2X platform means we can guarantee increased functionality and higher density. This makes the MCX7000 future-proof and the preferred solution for the reception of channel-bonded UHDTV programming on towers and cable head-ends in the future."

Both the Newtec MCX7000 and Equalink 3 were launched at NAB 2015.

In addition to Equalink 3, Newtec representatives demonstrated other innovative

broadcast solutions, all compatible with Newtec's multiservice broadcast platform Newtec Dialog.

"For broadcasters looking to save on OPEX and CAPEX, Equalink 3 is a must-have technology," said Hans Massart, market director broadcast at Newtec. "Live satellite tests have proven Equalink 3's ability to improve the link margin, which can be used either to improve coverage, service availability or to increase the symbol rate, which results in up to 15 percent more TV channels in a DTH carrier."

CSG platform delivers on digital services deployment and operation

IN THE PROVISION, deployment and operation of interactive transaction-driven solutions and services, **CSG International** offers a new platform, Ascendon, to enable current and future digital services providers (DSPs) to more easily transform their operations to capitalise on digital service opportunities.

CSG Ascendon is a digital services platform that allows communications service providers (CSPs), content producers and retailers to launch, scale and monetize new digital services such as movies, music, games, home security and more. By overlaying existing BSS and other technology systems, CSG Ascendon enables providers to quickly launch new digital services without uprooting existing infrastructure.

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To become a digital services provider of choice, CSPs need to quickly extend their business infrastructure to support retail and service operations for consumers in the new world, across multiple channels and on any device

"CSPs must participate in the fast-growth digital services economy to fuel their growth, moderate the rise of competing services and capture digital services market share," said Dr Mark H Mortensen, programme leader for Analysys Mason's Digital Economy Software Strategies practice. "To become a digital services provider of choice, CSPs need to quickly extend their business infrastructure to support retail and service

operations for consumers in the new world, across multiple channels and on any device."

CSG Ascendon offers an overlay strategy that enables providers to quickly define, deliver, analyse and refine new digital content or service offers. The platform gives providers a better method to support always-connected consumer experiences across devices with the addition of cloud-based consumer profiles, preferences, digital entitlements, e-wallet and payment options. Ascendon leverages CSG's extensive experience with SaaS to minimize initial costs and risk for providers as they evolve their approach to service presentation, ordering, delivery, payments and revenue settlement.

"Service providers worldwide are seeking a less disruptive way to enter, maintain and compete for position in the digital services market to help them take advantage of immediate opportunities," said Ken Kennedy, chief technology officer and senior vice president of product management and software development, CSG International. "Ascendon reflects a multi-year effort, working with some of the world's most innovative brands, to deliver digital services through various business models. As a result, it offers quick configurability to support new content delivery and digital service initiatives, a shorter time between concept and launch, and gives future and current DSPs more opportunity to compete in, and profit from, the digital evolution."



Ascendon is CSG's new cloud-based digital commerce platform, giving organisations striving to be DSPs what it takes to succeed

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L'automatisation des services et le contrôle réseau en temps réel

ALCATEL-LUCENT DYNAMISE LES réseaux IP et optiques des fournisseurs de services grâce au cloud avec le déploiement de sa nouvelle NSP (Network Services Platform) basée sur la technologie SDN (réseaux définis par logiciel, software-defined networks). Cette nouvelle plateforme, qui représente la première approche totalement unifiée du secteur vis-à-vis de l'automatisation du service et du contrôle de réseau, permettra aux fournisseurs de services d'offrir une expérience utilisateur à la demande et simplifiée.

Selon l'entreprise d'analyse industrielle **ACG**, la nouvelle solution Network Services Platform d'Alcatel-Lucent réinvente la définition des nouveaux services en réduisant les délais de création de produits innovants de plus de 58 % et les ressources utilisées de plus de 56 % par rapport à ce qui a été fait par le passé. Une fois conçus, les nouveaux services peuvent être fournis instantanément via de multiples couches, domaines et plateformes réseau de fournisseurs. Par ailleurs, une recherche menée par les Bell Labs montre qu'en utilisant des algorithmes complexes afin de distribuer de nouvelles connexions de manière intelligente via leur réseau, les opérateurs sont capables de supporter 24 % de trafic générateur de revenus en plus.

Dans l'environnement actuel basé sur le cloud, les opérateurs doivent relever de nombreux défis afin de se développer et de fournir des services réseau de qualité. Développer et fournir des services requiert beaucoup de temps et de travail, et l'ingénierie réseau déconnecté complique la tâche aux fournisseurs de services qui doivent préparer leurs réseaux à subvenir aux besoins en constante évolution de leurs clients. Les services à la demande doivent en effet

être fournis instantanément et s'adapter au réseau en temps réel.

La solution Network Services Platform est la première à faire le lien entre la conception du service, sa fourniture et l'ingénierie réseau pour permettre aux opérateurs de mettre au point de nouveaux services à moindre coût et de les activer en temps réel. L'utilisation d'un logiciel dédié basé sur la technologie SDN qui combine l'expertise d'Alcatel-Lucent en gestion de services et en création et gestion de routage IP/MPLS et de réseaux optiques à grande échelle offre une approche unique en matière d'automatisation et de contrôle d'une large gamme de services au sein des réseaux IP et optiques des opérateurs. Cela donne également une visibilité totale et continue de l'état des différentes couches du réseau, ce qui permet de fournir des services multicouches/via des couches multiples de manière automatisée, d'utiliser les meilleures ressources réseau disponibles et d'optimiser le réseau en temps réel.

Grâce à leur technologie nouvelle et innovante et à leur équipe de consultants, les Bell Labs permettent aux fournisseurs de services de gérer leurs réseaux plus efficacement et d'augmenter ainsi leurs revenus de 24 %. Les algorithmes de routage adaptatifs utilisent des informations tel que le trafic et l'utilisation des liaisons ainsi que la topologie et l'état des réseaux afin de déterminer le meilleur chemin de transport. Les fournisseurs de services peuvent par exemple utiliser différents chemins afin d'éviter d'éventuelles congestions du réseau ou de libérer de la bande passante congestionnée pour permettre l'ajout de services client supplémentaires.

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3 segments in service

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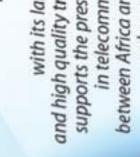
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*** PMSE 2 under construction PHASE I, Inservice









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TO THE WORLD



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