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CONTENTS

Bulletin	4
Events	8
Agenda	10
Solutions	29

ARTICLES

Network	16
A new semiconductor material made from black phosphorus, and a renewed commitment to technology for growth, innovation and transformation	
Devices	18
The personal communications revolution underway in Africa, driving new market growth for increasingly sophisticated handsets	
AfricaCom	20
The 2015 edition of the continent's key technological showcase of equipment and software to connect communities	
IBC	24
Reports from this established European broadcasting event, which sees deepening convergence between transmission, reception, and communications technologies	

A note from the Editor

THIS ISSUE ADDRESSES issues affecting network power consumption and data management, on pages 16 and 17. There is an appraisal on page 18 of the market growth for increasingly sophisticated personal communications devices. Pages 20 and 22 carry a preview of AfricaCom, widely-regarded as the continent's key pan-African connectivity event. Pages 24 and 26 reflect on a similarly significant broadcasting event, IBC

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Une note du rédacteur

CETTE ÉDITION DE Communications Africa/Afrique représente l'entreprise mondiale de la sécurité numérique et des millions d'enregistrements de données dans le monde. Il y a un article sur le sujet d'agences marketing d'Afrique et des solutions marketing et d'activation aux clients locaux aussi bien qu'internationaux. Aussi, il y a un rapport sur le le développement à l'international d'un entreprise et de la technologie blockchain.

ARTICLES

Sécurité	19
Gemalto publie les résultats de l'étude Breach Level Index du 1er semestre 2015 portant sur la sécurité numérique	
Commerce	23
Publicis Groupe fait un grand bond en Afrique du Sud avec l'acquisition d'un groupe intégré d'agences marketing	
Investissement	28
Orange Digital Ventures investit dans Chain, premier fournisseur mondial de solutions technologiques de blockchain	

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Worldreader and Opera Software reach five million readers with mobile devices

GLOBAL NONPROFIT ENTITY **Worldreader**, which aims to improve literacy through digital books, has formed a partnership with **Opera Software** that has afforded access five million readers in Africa to 25,000 free digital book titles, via their mobile phones; "For the millions of people in Africa who already use the Opera Mini browser, this makes reading on a mobile phone as easy as making a call," said Richard Monday, VP Africa at Opera Software.

CTO reports on progress with key programmes

THE COMMONWEALTH TELECOMMUNICATIONS Organisation (CTO) 2014-15 annual report highlights key achievements in cybersecurity, e-inclusion and regulatory environments; presented at the annual meeting of the CTO Council in Nairobi, Kenya, in September 2015, the report features regional and bilateral programmes delivered by the CTO in its key strategic areas.

TETRA to make Cape Town safer

MOTOROLA SOLUTIONS AND radio distributor **Altech Alcom Matomo** has completed an extension of the digital Terrestrial Trunked Radio (TETRA) communications network in the city of Cape Town, South Africa; the city's technology investment provides resilient and feature-rich communications for public safety agencies and utilities to help protect its citizens and visitors.



City of Cape Town extends TETRA digital radio communications network with Motorola Solutions technology

"Investment in the TETRA system serves as an enabler for improved service delivery to the citizens of the CMA" - Councillor Xanthea Limberg, mayoral committee member for corporate services, City of Cape Town

Cobham uses IBC as launchpad for flexible, software-defined transmitter

RF SPECIALIST COMPANY **Cobham Tactical Communications and Surveillance** has launched the SOLO8 SDR, an ultra-small camera-back transmitter that for the first time takes the description 'software-defined' into the RF world; unveiled for the first time at IBC 2015, the new SOLO8 SDR is a COFDM digital video transceiver with an exceptionally high density of connectors, offering ease of

integration, a small form factor, and ultra-low power consumption (between 5 to 10W) - coupled with an ability to perform multiple functions in a single unit - to reduce significantly the amount of equipment needed to be carried into the field, and so to reduce the inventory typically needed to be carried by hire companies.

Actus offers clip creation and Change Tracker for improved content management at IBC 2015

A ONE-STOP SHOP content repurposing solution for mobile, Internet, OTT or any content platforms, presented at IBC 2015, Actus Clip Factory enhances the workflow of clips creation by adding automation to the clips creation process, and the new Actus Change Tracker solution, also shown at IBC, is used for comparing outgoing and off-air feeds and flagging significant differences according to user-defined rules; **Actus Digital** provides cost-effective web-based broadcast monitoring solutions for broadcasters, networks, cable and satellite operators, IPTV, media agencies, governments and content producer worldwide.

Avanti Communications and GRC agree multi-year, multi-region contract for public sector satellite services

SATELLITE CONNECTIVITY SPECIALIST **Avanti Communications** has signed a multi-year contract with **Global RadioData Communications (GRC)** to deliver secure, resilient Ka-band satellite connectivity to a variety of government, defence and emergency service customers; Tony Talbot, technical sales manager at GRC, commented, "Having invested in the latest Ka-band technology to deliver high speed data communications services across EMEA, Avanti is the clear choice for secure communications even in the most demanding locations."

Globalstar's STX3 chipset selected by Identec Solutions for advanced asset tracking

SATELLITE MESSAGING AND emergency notification technologies firm **Globalstar Europe Satellite Services** has contracted with wireless communications specialist **Identec Solutions** to integrate Globalstar's STX3 chipset into a new highly-flexible and capable asset-tracking solution; **Identec Solutions** will add the iQ350LX GPS/SAT tag to its existing solution platform developed specifically for companies carrying out remote operations, both land-based and offshore.

Nokia Networks unveils its programmable 5G multi-service architecture

NOKIA NETWORKS HAS been developing a programmable 5G architecture that overcomes the rigidity of legacy networks, automatically and dynamically adapts radio access and core network resources to meet the needs of different services, traffic variations over time and location, and network topology, including transport; the quality of customer experiences will be substantially higher, while almost instant response and rock-solid connectivity promise to transform the business processes of industry sectors from manufacturing to automotive and healthcare.

ContentWise and Babeleye bring personalisation to the Middle East and Africa

DIGITAL TV CONTENT solution company **ContentWise** has partnered with multi-lingual video content metadata platform provider **Babeleye** to bring personalised TV experiences to the Middle East and Africa; the partnership, which will see Babeleye's metadata platform integrated with both **ContentWise** solutions, will enable **ContentWise** to deliver search, discovery and recommendations for local content, providing viewers with the very best TV experiences across screens.

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La solution de Wipro et VMware pour créer un espace de travail numérique

WIPRO, UNE SOCIÉTÉ de premier plan spécialisée dans les technologies de l'information, le conseil et les services de processus d'affaires, a lancé Wipro LiVE Workspace, exécutée à l'aide des solutions de mobilité commerciale de VMware; cette solution permet aux entreprises d'être prêtes à capitaliser sur le numérique pour les utilisateurs finaux de prochaine génération, les aidant à créer un espace de travail souple, intelligent, collaboratif et mobile.

« Nous sommes heureux de présenter notre nouvelle offre LiVE Workspace, équipée des solutions de mobilité d'entreprise de VMware. LiVE Workspace, qui est soutenue par l'hyper-automatisation, l'intelligence artificielle et la transformation numérique, aide les clients à transformer leur espace de travail en une expérience qu'il est possible de déployer n'importe où, n'importe quand et depuis n'importe quel appareil »

- G K Prasanna, président et chef de la direction, global infrastructure services, Wipro Limited

Lancement réussi du satellite Eutelsat 8 West B

LE SATELLITE EUTELSAT 8 West B, d'une masse de 5,8 tonnes, a été lancé avec succès par une fusée Ariane 5; Michel Azibert, Directeur général délégué et directeur commercial et du développement d'Eutelsat, a dit : « Avec le satellite Eutelsat 8 West B, nous écrivons un nouveau chapitre dans l'histoire du principal pôle audiovisuel du Moyen-Orient et d'Afrique du Nord, exploité à partir des satellites d'Eutelsat et de Nilesat.

Eutelsat 8 West B (Photo: Thales Alenia Space / imagIN)



Une mesure importante en faveur de la Conférence CMR-15

JOHN GIUSTI, CHEF adjoint pour la réglementation chez GMSA s'est exprimé sur les résultats de la réunion finale de l'Union Africaine des Télécommunications (UAT) qui a eu lieu à Nairobi, précédant la

Conférence Mondiale des Radiocommunications (CMR-15); il a dit: « Ils ont fait preuve en se rapprochant et acceptant des propositions unifiées, de leur support à assurer la disponibilité d'une plus grande couverture pour répondre aux besoins de leurs citoyens en termes de haut débit mobile. »



Yahoo LiveText est une nouvelle façon de rester en contact

Yahoo LiveText - une nouvelle façon de communiquer

YAHOO! INC A lancé de Yahoo LiveText, une nouvelle application de SMS vidéo en direct sur téléphones iPhone et Android; Yahoo LiveText allie la commodité et la facilité d'envoyer des SMS, avec l'immédiateté et la vivacité de la vidéo en direct, mais sans le son - de sorte que vous pouvez l'utiliser dans n'importe quel contexte.

Cérémonie de réception et de récompense des lauréats du Concours Général

LA FONDATION SONATEL reçoit et récompense les lauréats du Concours Général 2015, après avoir accompagné la cérémonie officielle de distribution des prix présidée par le Chef de l'Etat; la réception des lauréats a débuté par une rencontre au nouveau siège de Sonatel avec le Directeur Général, Président du Conseil de Fondation, Monsieur Alioune Ndiaye et a poursuivi dans les locaux de la Fondation Sonatel.

La performance de la technologie de Mellanox en matière d'application et d'infrastructure cloud

MELLANOX TECHNOLOGIES, GRAND fournisseur de solutions d'interconnexion bout-en-bout haute performance, offre une connectivité cloud Ethernet de plus de 25, 50 et 100 Gits/s au stand de Mellanox; les nouveaux débits de connectivité de données offrent une évolutivité économique de la bande passante de réseau fournie aux serveurs et points de stockage pour les infrastructures cloud nouvelle génération, dont les charges devraient dépasser la capacité des liens Ethernet de 10 ou 40 Gbits/s déployés à l'heure actuelle.

« Nous sommes fiers de conserver notre rôle de leader dans la technologie et d'être les premiers à prendre en charge tous les débits Ethernet standards sur une seule carte »

- Kevin Deierling, vice-président marketing, Mellanox Technologies

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Events / Événements 2015/16

NOVEMBER/NOVEMBRE

2-3	TV Connect Middle East & North Africa	Dubai, UAE	mena.tvconnectevent.com
2-27	World Radiocommunication Conference	Geneva, Switzerland	www.itu.int
3-4	Location & Context World	Palo Alto, USA	locationandcontextevent.com
9-12	OTTTV World Summit	London, UK	ottworldsummit.com
10-12	MVNO Networking Congress	London, UK	mvnoevent.com
17-19	AfricaCom	Cape Town, South Africa	africa.comworldseries.com
17-19	LTE Africa	Cape Town, South Africa	africa.lteconference.com
17-19	TV Connect Africa	Cape Town, South Africa	africa.tvconnectevent.com
27-28	Broadcast, Film & Music Africa	Nairobi, Kenya	aitecafrica.com
30 Nov-1 Dec	Gartner Data Centre, Infrastructure & Operations Management	London, UK	www.gartner.com

DECEMBER/DÉCEMBRE

1-2	Messaging & SMS World	London, UK	www.capacityconferences.com
1-3	Gartner Application Architecture, Development & Integration	Las Vegas, USA	www.gartner.com
1-3	Gartner Data Centre, Infrastructure & Operations Management	Las Vegas, USA	www.gartner.com
7-8	e-AGE	Casablanca, Morocco	asrenorg.net
7-9	Gartner Identity & Access Management	Las Vegas, USA	www.gartner.com
7-10	IEEE SSCI	Cape Town, South Africa	ieee-ssci.org.za
15-16	AfriComm	Cotonou, Benin	africomconference.org

JANUARY/JANVIER

23-25	MicroCom	Durgapur, India	www.ieee.org
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FEBRUARY/FÉVRIER

17-18	eCommerce Africa	Cape Town, South Africa	www.ecommerce-africa.com
22-25	Mobile World Congress	Barcelona, Spain	www.mobileworldcongress.com

ABS-3A satellite enters commercial service

THE REVOLUTIONARY ABS-3A satellite is now in full commercial use. The satellite started service on 31st August 2015 to serve the Americas, Africa, Europe and the Middle East regions.

Launched on 1st March 2015, the ABS-3A satellite built by Boeing has performed even better than expected having arrived ahead of schedule. In-Orbit tests have been successfully completed and the satellite became fully operational on 31st August 2015.

ABS-3A features 48 C and Ku-band active transponders (96 x 36 MHz equivalent) and is equipped with high performance beams to support the rapidly growing markets in the Americas and Africa as well as the European and Middle East regions. ABS-3A provides expansion capacity to reach markets servicing high-growth data, video, mobility and government applications.

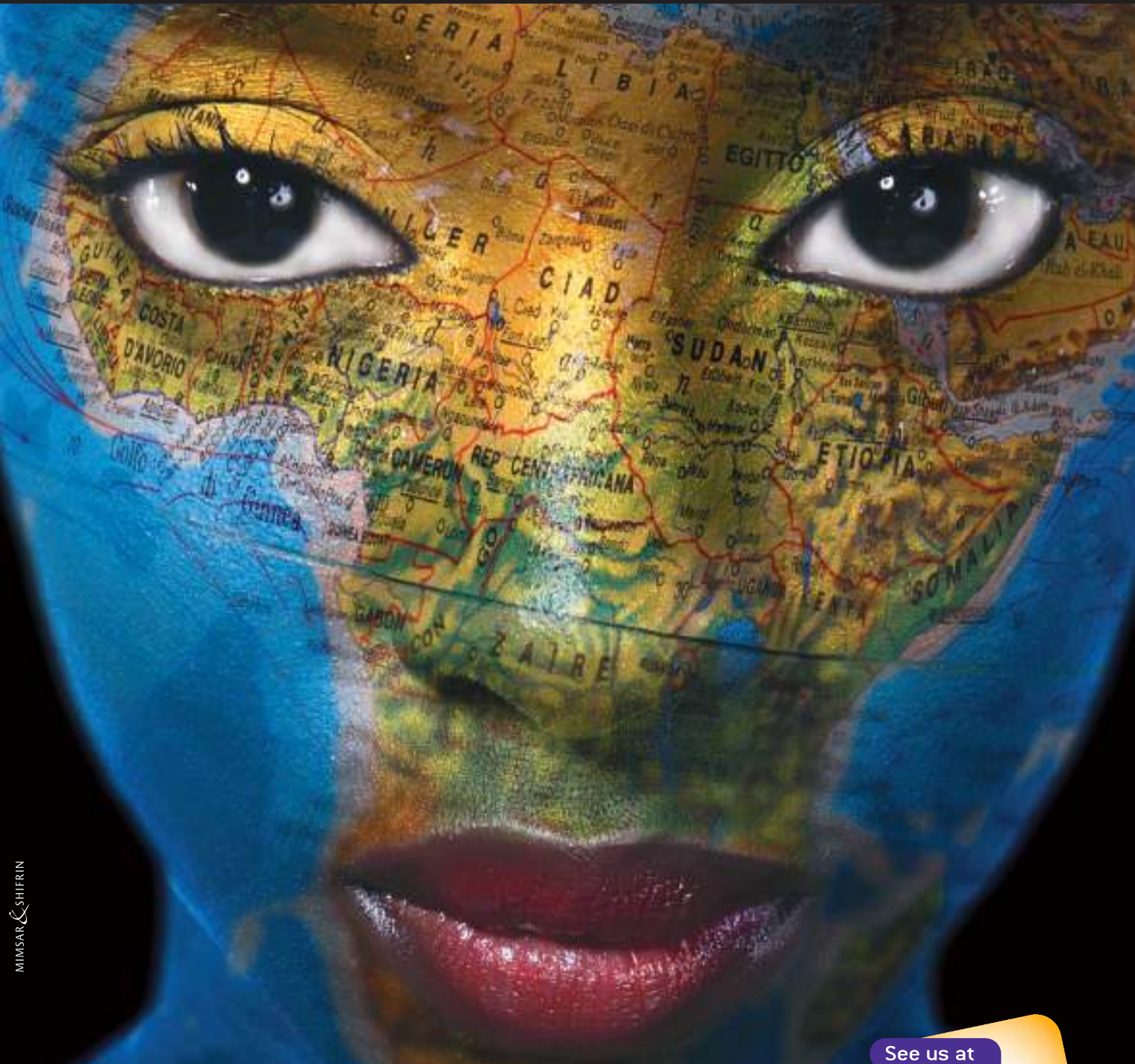
“ABS’ innovative design and procurement approach for satellites is designed to provide the best possible economics to our customers. ABS-3A and along with ABS-2A, launching in early 2016, will deliver these exceptional economics on current next-generation satellites. Both ABS-3A and 2A will further strengthen and solidify our global expansion and offer flexible capacity to our growing fleet,” commented Tom Choi, CEO of ABS. “We look forward to serving diverse markets using increasingly innovative and affordable solutions for many of ABS’ current and future customers.”

“With a successful launch, testing and execution of orbit operations, we were able to deliver the first 702SP to ABS about one month earlier than planned,” said Mark Spiwak, president, Boeing Satellite Systems International. “The 702SP product line was designed to bring the latest technology into the hands of customers seeking adaptable and affordable solutions. In addition, the 702SP’s patented dual-launch capability helps customers share launch costs, which can significantly lower overall expenses for a satellite owner.”



The ABS-3A satellite has entered commercial service

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Spacecom, an established satellite provider, focuses on Africa with newly launched services, designed to enhance communication services in the continent: **AMOS-4** at 65°E with Ka-band over Africa, **AMOS-5** at 17°E, delivers high-power Pan-African C-band and Ku-band capacity with access to Europe & ME. With the upcoming launch of **AMOS-6** (in 2016), Spacecom will provide greater capacity, High Throughput Ka Multibeam capabilities and affordable end to end satellite services. **AMOS Cellular-Satellite Hybrid Broadband** solutions in Africa offer fast, affordable internet for everyone.

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ICT spend escalates in South African retail sector

HISTORICALLY, RETAILERS IN South Africa exploited information and communication technologies (ICTs) to increase operational efficiencies in areas such as supply chain management, point-of-sale systems, and enterprise resource planning. Going forward, expenditure by retailers will shift to application-based usage, including data analytics, social commerce, and omni-channel engagement, thus firmly embedding ICT into multiple facets of the retail value chain.

Analysis from **Frost & Sullivan**, published as 'ICT Spend in South Africa: Retail Sector', indicates that total ICT spend in the retail sector stood at US\$484.1mn in 2014 and estimates this to reach US\$572.6mn in 2019, at a compound annual growth rate (CAGR) of 3.4 per cent.

"The prevalence of cloud-based applications and managed services, as well as stronger focus on ICT from support units like marketing, are pushing up ICT spend in the South African retail sector," said Frost & Sullivan ICT programme manager Gareth Mellon. "Factors like increased connectivity, the adoption of mCommerce, and improved access to customer information contribute to the drive for more ICT applications."

An ongoing challenge for retailers is the integration of legacy systems with new applications. Furthermore, the continued need for systems

maintenance is cutting into ICT budgets and delaying the adoption of new technologies. Broader macroeconomic conditions, such as the slowdown in the SA economy and lack of reliable power, also dampen retailer investment in ICT.

Concerns surrounding the security of customer information also restrain implementation. As customers demand personalised services, information becomes more critical. However, it is no longer just about collecting information; ICT providers and retailers must also address the important question of effectively managing and protecting this data.

"A comprehensive understanding of the retail value chain will assist ICT providers in identifying the role they can play," noted Mellon. "For example, the extension of the value chain to include personal delivery to customers is a challenging prospect for retailers, but this is an area that ICT partners can easily assist in."

While the pervasive influence of connectivity and convergence can overwhelm retailers, articulating the value of new technologies - such as big data and virtualisation - will help South African ICT providers open the door to effective implementation. Eventually, ICT will move beyond the mere running of retail operations to supporting the entire retail business model.

Connecting logistics

ACCORDING TO A new market research report, 'Logistics Market by Internet of Things (IoT) Technologies in Fleet Management, Warehouse and Inventory Management, by Connectivity Technologies (Zigbee, Wi-Fi, Satellite), by Devices, Transportation Mode, Services - Global Forecast to 2020', published by **MarketsandMarkets**, the global connected logistics market is expected to grow from US\$5.05bn in 2015 to US\$20.46bn by 2020, at a compound annual growth rate (CAGR) of 32.3 per cent.

The report is segmented by systems and solutions categorisations including logistics management systems, warehouse management systems, and security and monitoring systems, and by hardware into gateways, RFID, and sensor nodes.

Isocel, leading in Benin, a trusted partner in Africa

ISOCEL IS A major telecommunications and an internet service provider in Benin. Founded in 2008, the company has its own frequencies in the 2.3 and 3.5 GHz bands. Isocel conveys its international capacities via submarine cables from its PoPs in London and Paris to the Network Operations Center in Cotonou where customers are served through both Wireless Local Loop and fibre optic infrastructure. The company offers broadband internet connection services for individuals, SMEs and large companies.

Isocel offers a One Stop Shop for Internet, IP/Ethernet Backhaul or traditional backhaul services

Moreover, Isocel provides digital data transmission solutions, server hosting and customised solutions for large companies and international organisations. Isocel has established connections to major exchange points in Europe like London Internet Exchange (LINX), Amsterdam Internet Exchange (AMS-IX) and Neutral Internet Exchange (NL-IX) to peer and exchange IP traffic. Peering with International Exchange Points allowed Isocel to route traffic to major CDN providers and to other networks. This means that instead of passing all IP traffic to its IP transit, the traffic will now be directly routed through these IXes allowing faster response time and cost-effective Internet services to residential and business subscribers. Joining these Internet Exchange Points has delivered advantages eg improved quality of service and lower latency to destination hosts. And Isocel is an ACE Benin member, and managed the country's submarine cable landing. Being indirectly a member of the ACE consortium has enabled the company to acquire large volumes of international capacities and reach other countries such as Burkina Faso, Ghana, Ivory Coast, Niger, Nigeria and Senegal. At present, Isocel offers a One Stop Shop for Internet, IP/Ethernet Backhaul or traditional backhaul services. Customers may now experience a single provider, single support, and single biller to their multi-country sites.

MTN moves money between Uganda and Rwanda

MOBILE MONEY SERVICE provider **WorldRemit** and network operator **MTN Uganda** have introduced money transfer services between Uganda and neighbouring country Rwanda. This new mobile money service will allow customers in both countries to transact without having to change currencies. The service enables an MTN customer in Rwanda to send money in Rwandese Francs to a recipient in Uganda who will receive it in Uganda Shillings. The recipient has to be a customer of MTN Uganda to receive the transfer.

"Technology is helping us eliminate national borders, enabling a unified digital and mobile financial services world. We are delighted to offer a solution that further enhances this agenda," said Mr Phrase Lubega, MTN Uganda's general manager in charge of financial services. "We also trust that our customers will find it easy, fast and a more convenient means of transferring funds internationally."

By end-June 2015 MTN Uganda had recorded a 12.8 per cent increase in mobile money subscribers, from 7.3mn (at the end of 2014) to 8.2mn.

Mobile money is the ICT industry's fastest-growing service offering, and is helping to vastly reduce the costs of sending money abroad. Alix Murphy, senior mobile analyst at WorldRemit, said, "International remittances via mobile money are growing both in Africa and globally. There are now over 260 mobile money services worldwide with over 100 million active users. The mobile money interoperability initiatives that exist between telecoms operators remain intra-country or intra-continent, as most lack the underlying infrastructure for money transfers internationally across continents. Money transfer services such as WorldRemit act as a hub to connect these disparate systems and enable seamless money transfers from abroad directly into mobile money wallets at a fraction of the cost of the traditional money transfer industry. Today, over 60 per cent of WorldRemit's international money transfers to Uganda go to mobile wallet services, demonstrating the important role mobile money plays for Ugandans living in the diaspora."

YAMAL-300K

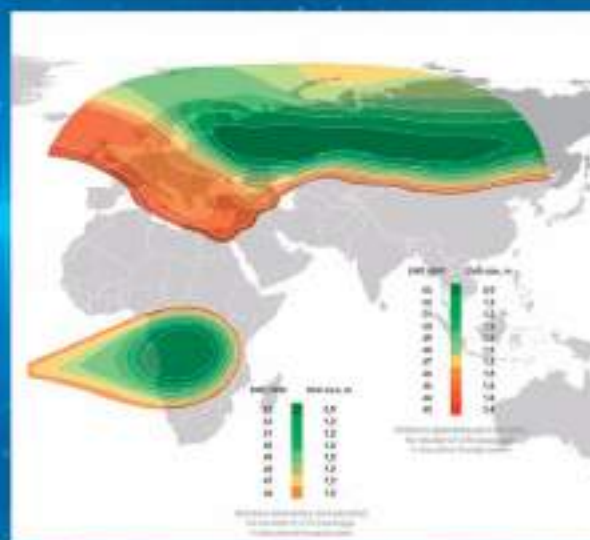
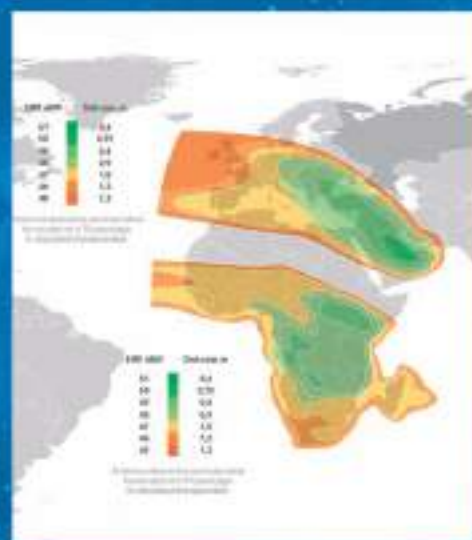
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MTN Uganda partners with Huawei, launches P8 smartphone

TELECOMMUNICATION OPERATOR **MTN Uganda** has launched the P8 smartphone from **Huawei** on the Ugandan market and will be available in MTN outlets and service centers across the country at a cost of 1,590,000 million shillings (about US\$450) and is bundled with 50MB of data, daily for sixty days.

MTN CEO, Brian Gouldie said during the launch of the P8 in Kampala recently, "We are very delighted to partner with Huawei to unveil this year's best smartphone so far. Smartphones are definitely the future of this industry."

He added, "The Huawei P8 is built to offer a world-class user experience, something we as MTN emphasise in everything we do because we believe in making the customer the champion. With our country-wide 4G network, this phone will deliver that."

The managing director of Huawei Uganda, Stanley Chyn said one of the P8's competitive advantages is its ability to connect more efficiently to different mobile networks, stressing that "the P8 has been developed to hold and amplify even the weakest connection".



Huawei's P8 smartphone has been launched in Uganda by MTN

He added that the company's mandate was to design devices that inspire creativity and building on the success of its predecessors, the P8 embodies a classic yet inspiring design, class-leading technology and ease of use that is bound to inspire its users.

Style and performance

Company officials say the device's outward appeal lies in its sleek, classical design, which reflects its users' sense of style and appreciation of performance and usability.

It also combines elegance, craftsmanship and durability.

MTN Uganda says some of the key features of the Huawei P8 include an Octa Core processor 1.5 GHz, a 5.2 inch touch screen, battery at 2600 mAh, and 16 GB ROM plus 3 GB RAM.

Other features include a 13 mega pixel MP rear camera plus 8 MP front camera, a portable WiFi hotspot that complies with WiFi 802.11 bgn and supports Long Term Evolution (LTE) networks B5 and B7, and Bluetooth 4.1.

Geoffrey Muleme

SES VOD at IBC 2015

SATELLITE OPERATOR SUBSIDIARY SES Platform Services presented a live showcase of Liquid VoD, for video-on-demand services (VoD) via satellite, at IBC 2015.

Liquid VoD is an innovative way to distribute video content over satellite, delivering a real VoD user experience.

The solution addresses the lack of broadband internet connectivity in underserved areas and delivers content to an ever-increasing number of users without incremental distribution cost.

"There are still many areas in the world without area-wide broadband supply, and in these regions Liquid VoD would be a perfect solution for operators to launch VoD services to exploit the growing demand for non-linear content," said Wilfried Urner, CEO of SES Platform Services.

Smile secures financing for 4G LTE expansion

NETWORK OPERATOR **SMILE Telecoms** which owns and operates mobile wireless 4G LTE broadband networks in the 800MHz band in Nigeria, Tanzania and Uganda, has raised US\$365mn of debt and equity financing, to be used to expand Smile's existing 4G LTE mobile broadband networks and services to enable it by the end of 2015 to offer clear voice services and national coverage comparable to the largest 3G network in each of its current countries of operation. Smile will also launch its broadband network in Democratic Republic of Congo (DRC) early in 2016.

The funding is comprised of US\$50mn of equity, raised from the country's **Public Investment Corporation** on behalf of its **Government Employees Pension Fund (PIC)**, and a US\$315mn multi-tranche, multi-jurisdictional debt facility led by **African Export-Import Bank** with participation from the PIC, the **Development Bank of Southern Africa**, **Diamond Bank PLC**, **Ecobank Nigeria**, the **Industrial Development Corporation of South Africa Limited** and **Standard Chartered Bank**. Smile's shareholders now comprise **Al Nahla**

Group, which is the majority shareholder; **Renven Investment Holdings**, a pan-African investment vehicle; **Verene**, representing Smile senior management and social entrepreneurs from South Africa; Saudi company **Telecom Investments; Capitalworks**, an active alternative management company, specialising in investment in the African mid-market; the PIC; and Smile employees.

Irene Charnley, Smile CEO, said, "Now that we are fully funded to deliver national coverage of unrivalled super-fast internet access and clear voice services, our priority is to ensure that our customers experience and benefit from the power of high speed mobile broadband compared to the narrowband services available to date."

Dr Daniel Matjila, CEO of the PIC, said, "We are excited about our investment in Smile Telecoms as it provides us with an opportunity to accelerate and realise our mandate to invest in the rest of the African continent. Telecommunications is one of the key drivers for economic growth and its importance cannot be over emphasised."

Libtelco opts for Cataleya for network modernisation

CALEYA HAS BEEN selected by **Liberia Telecommunication Corporation (Libtelco)** to deliver a turnkey solution for interconnection, billing, and session and application management. The foundation for the solution will be **Cataleya's** Orchid One session and application manager, which will be used to support Libtelco's migration from legacy TDM infrastructure to IP networking.

Phase 1 of the network modernisation will enable the delivery of both domestic and international VoIP services to local enterprises and government and allow international calling from fixed line phones for the first time in Liberia. Phase 2 will support the delivery of unified communications as a service (UCaaS) to Liberia's growing small and medium businesses (SMBs).

"We are supporting the modernisation of Liberia's communications infrastructure with a complete solution that is accelerating the adoption of IP services. Whether it is international VoIP calling or cloud communications, this is a major step forward for Liberia and will fast-track growth in local businesses, start-ups, and technological innovation in West Africa," said Andreas Hipp, CEO at Cataleya.

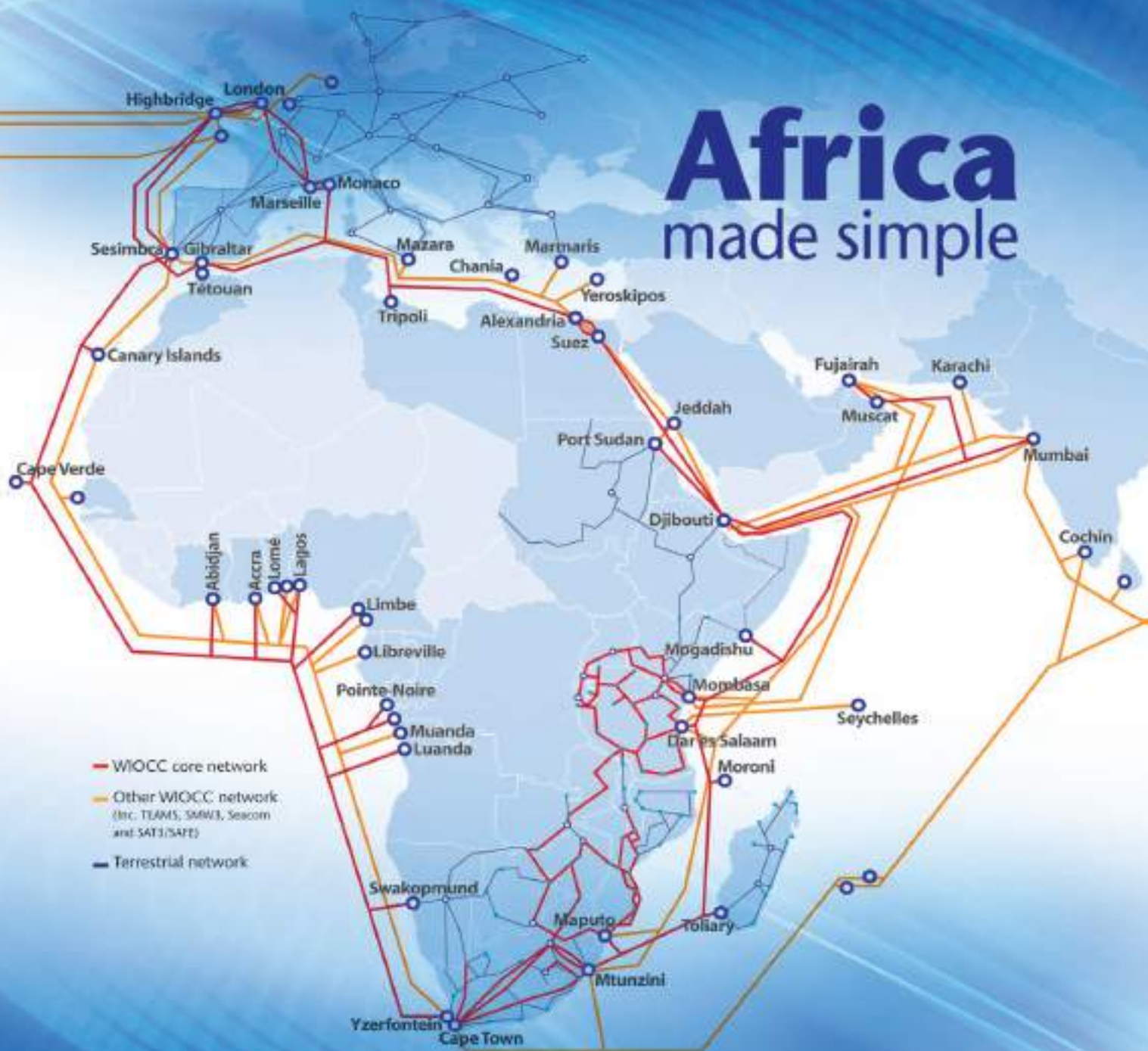
Libtelco serves local consumers and business as well as Liberia's domestic mobile network operators (MNOs). Liberia has over 2.4 million mobile subscribers and a mobile penetration rate of 78%, according to Buddecomm. Phase 1 of its network modernisation will be completed over the next 12 months.

"We transforming our network to deliver advanced communications services and applications and shaping a new era in communications sector in Liberia. We selected Cataleya because it offered us the fastest and most efficient way to modernise our network and deliver high-quality IP services. It is critical that we invest in future-proof technologies like Orchid One to guarantee the long-term success of the communications market in Liberia," said Sebastian Muah, CEO and managing director at Libtelco.

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Le laboratoire PiLeJe choisit Surface Pro 3

LE LABORATOIRE PILEJE choisit la tablette Surface Pro 3 de **Microsoft** pour optimiser les prestations de sa force de vente et développer les usages du travail en mobilité de ses salariés.

Le laboratoire avait besoin d'un appareil mobile pour équiper sa force de vente qui commercialise ses produits et ses formations auprès de médecins, de pharmaciens et de professionnels de santé. Son choix s'est porté sur la Surface Pro 3 qui répond à ses critères de puissance, d'autonomie et de poids. Couplé à DirectAccess, l'appareil permet un accès 30 % plus rapide aux applications.

Créé en 1991 par une équipe de médecins, le laboratoire PiLeJe est spécialiste de la micronutrition et de la phytothérapie. Dans ses trois sites de production situés dans le Maine et Loire, il élabore et diffuse des compléments alimentaires, des produits diététiques, et des aliments fonctionnels pour répondre à des besoins spécifiques identifiés. Ces produits sont commercialisés en direct auprès des médecins, de pharmaciens et de professionnels de santé qui les prescrivent à leurs patients.

Un outil simple à utiliser pour se concentrer sur l'usage

Pour la centaine de commerciaux répartis sur tous les sites, le besoin d'un appareil nomade leur permettant de travailler en mobilité dans les meilleures conditions s'est imposé comme une priorité afin d'améliorer leurs prestations commerciales. « Depuis 2012, nous cherchions une tablette ou un PC Hybride qui permette à nos commerciaux de montrer le catalogue de nos produits et de dispenser des formations à nos clients pharmaciens, médecins et professionnels de la santé dans de bonnes conditions. Nous souhaitons aussi équiper

nos salariés nomades qui se déplacent en permanence sur nos différents sites. Pour cela, il nous fallait un appareil performant et facile à utiliser pour développer le travail en mobilité, qu'il s'agisse de réunions ou de prises de notes », explique Pierre Vandecasteele, Directeur administratif et financier.

Une liste de critères est établie par le service Informatique pour orienter les recherches vers le produit idoine. L'un des prérequis est que l'appareil soit simple d'utilisation. L'objectif fonctionnel du projet est de parvenir à effacer les contraintes de la technologie pour se concentrer sur la valeur d'usage que les salariés peuvent en retirer. « Nos commerciaux utilisent des applications très consommatrices de ressources. Pour répondre à leurs besoins de puissance, nous souhaitons une machine avec un processeur Intel Core et 4 Go de mémoire vive », détaille Alexandre Dodier, responsable de l'exploitation informatique.

Autres critères cruciaux décidés par le laboratoire pour la sélection : la taille de l'écran (elle est fixée à 12 pouces pour optimiser le rendu des images des catalogues produits et des formations, tout en assurant un excellent confort visuel pour les clients) et le poids de l'appareil (pour faciliter le transport et réduire la pénibilité, il ne devra pas dépasser un kilo).

La Surface Pro 3 supprime toutes ses concurrentes

Le service informatique est chargé de procéder à la sélection du produit idoine. Les tablettes et les PC hybrides les mieux notés du marché sont systématiquement testés et passés au crible des critères. « A l'issue de ces tests, la Surface Pro 3 était le seul appareil qui répondait à tous nos critères techniques et à la valeur d'usage que nous cherchions », précise Alexandre Dodier.

Pour confirmer ce choix, décision est prise de distribuer quatre tablettes en interne. Afin de tester équitablement ses qualités techniques et ses bénéfices d'usage, deux catégories de testeurs sont retenues. D'un côté, le directeur général et le directeur administratif et financier. De l'autre, deux membres du service informatique. « La validation de la direction a été très rapide. Un mois après la prise en main, notre Directeur général nous a remis son ancien ordinateur portable en nous disant qu'il souhaitait désormais garder la Surface Pro 3 comme unique appareil de travail. La réaction du Directeur administratif et financier a été similaire », se souvient Alexandre Dodier.

Un appareil adapté pour tous les usages métier

La réaction des membres du service informatique est toute aussi positive. Couplée à DirectAccess, la technologie permettant d'être connecté en permanence au réseau de l'entreprise via Internet, la Surface Pro 3 enregistre des performances d'accès 30 % plus rapide aux applications. Un gain qui profite aussi aux salariés nomades qui se déplacent en permanence entre les trois sites du Laboratoire.

La rapidité de démarrage et d'exécution de la Surface Pro 3 répond à un enjeu de crédibilité auprès des clients. Pour un commercial, rien n'est plus contre-productif qu'une machine à bout de souffle comme support d'une présentation de produits.

Autre valeur ajoutée : le design haut de gamme de la Surface Pro 3 conforte l'image moderne du laboratoire et valorise ses méthodes de vente.

L'autonomie de la Surface Pro 3 est aussi plébiscitée : « nous avons constaté une grande autonomie ce qui permet aux commerciaux d'enchaîner sans contrainte toutes leurs tâches de la journée : les présentations de produits, les formations et les prises de commandes », indique Alexandre Dodier. « Pour moi qui voyage en avion, son faible encombrement me permet de travailler. Ce n'était pas possible auparavant avec mon PC portable », ajoute Pierre Vandecasteele.

Face à l'engouement massif constaté sur ce projet, l'ensemble du parc de PC portables va être progressivement remplacé par des Surface Pro 3.

La première phase de déploiement se compose de 172 appareils. Pour le service informatique, ce choix permet un gain sur l'exploitation en couplant l'appareil et les applicatifs Microsoft. « Tous les utilisateurs l'ont reçue en même temps. C'est un moyen efficace pour susciter l'adhésion et la prise en main », conclut Alexandre Dodier.

Le laboratoire PiLeJe choisit la tablette Surface Pro 3 pour optimiser les prestations de sa force de vente



ACE

The African Coast to Europe (ACE): a 17,000 km long broadband optical submarine cable between Africa and Europe

Phase one project

- 3 segments in service:
- France - Senegal
 - Senegal - Côte d'Ivoire
 - Côte d'Ivoire - Sao Tome & Principe

14 countries connected on the coast,
2 landlocked countries

Phase two project

Phase 2, under construction or planned:

- Extension from Sao Tome & Principe - South Africa
- Canary Islands - Benin - Nigeria to be operational May 2015
- Republic of Cameroon - Democratic Republic of Congo - Angola - Namibia



ACE,

with its large bandwidth and high quality transmission technology, supports the present and future growth in telecommunication traffic between Africa and the rest of the world, reduces digital divide and drives economic and social growth.



Future communications comes with new computer chips

A new semiconductor material made from black phosphorus may be a candidate to replace silicon

SILICON VALLEY IN the US State of California got its nickname from the multitude of computer chip manufacturers that sprung up in the surrounding area in the 1980s. Despite its ubiquity as a chip building material, silicon may be facing some competition from a new version of an old substance. Researchers working at the Institute for Basic Science (IBS) Center for Integrated Nanostructure Physics at Sungkyunkwan University (SKKU) in South Korea, led in part by director Young Hee Lee, have created a high performance transistor using black phosphorus (BP) which has revealed some fascinating results.

Transistors are made up of materials with semiconducting properties, which come in two varieties: n-type (excess electrons) and p-type (excess holes). With the BP crystal, researchers have discovered that they can change its thickness and/or the contact metals and that will determine if it is high performance n-type, p-type, or ambipolar (function as both n- or p-type) material.

“The driving force in black phosphorus is the carrier mobility. Everything centres around that.” - David J Perello

What does this mean?

Silicon has to be extrinsically doped (inserting another element into its crystal structure) to make it n-type or p-type in order for it to work in a semiconductor chip. The BP crystals can operate as both n-type and p-type or something in between, but don't require extrinsic doping. This means that instead of having to fabricate a silicon-arsenic crystal sandwiched between silicon-boron crystals, a transistor can have a single, lightweight, pure black phosphorus logic chip - no doping required. Additionally, changing the metals used to connect the chip to the circuit has an influence on whether BP will be n- or p-type. Instead of doping to make an n- and p-type material, both n- and p-type BP can be put all together on one chip just by changing its thickness and the contact metal used.

Why is this important?

Technology manufacturers are in an arms race to make their devices lighter, smaller and more efficient. By using BP that is only several atomic layers thick, transistors can be made smaller and more energy efficient than what exists now. Silicon chips exist in all of our electronic devices, and as manufacturers make devices smaller and more energy efficient, they begin to approach the threshold for just how small components can be. BP may provide a thinner, more efficient alternative to silicon chips in electrical devices.

Another example is tiny autonomous data recording and transmitting devices which will make up the Internet of Things (IoT). A major constraint from preventing IoT from taking off immediately is the inability to scale down the component size and the lack of a long-term power solution. Two-dimensional layered materials (such as black phosphorus) are interesting in this aspect, since both the electrical and mechanical properties are often enhanced compared to their bulk (three-dimensional) counterparts.



Schematic of the "puckered honeycomb" crystal structure of black phosphorus (Source: Vahid Tayari/McGill University)

Is BP a good alternative to current semiconductor materials?

It is a great material for transistors since it has a high carrier mobility (how quickly an electron can move through it). This gives BP the ability to operate at lower voltages while also increasing performance, which translates to greatly reduced power consumption. With aluminum as a contact, thicker BP flakes (13 nanometer) show ambipolar properties similar to graphene while thin 3 nm flakes are unipolar n-type with switching on/off ratios greater than 10⁵. The thinner they can make the material, the better the switching performance. David J Perello of Sungkyunkwan University in Seoul explained, “The driving force in black phosphorus is the carrier mobility. Everything centres around that. The fact that the band gap changes with thickness also gives us flexibility in circuit design. As a researcher it gives me a lot of things to play with.”

Is it ready to compete with silicon?

Unlike other industry standard semiconductor materials, there isn't a good method for making pure BP on a large scale. Currently, thin layers can be made only from scraping bulk crystalline BP samples, as no other manufacturing method exists yet. Tackling the scaling problem is already underway, with chemical vapor deposition (CVD) and other thin film growth techniques being investigated in labs across the world. The lack of a monolayer fabrication technique isn't necessarily a problem though. SKKU research fellow David Perello explains, “We can probably operate with 3, 5, or 7 layers and that might actually be better in terms of performance.”

When asked if BP was ready to compete with silicon today, Perello said, “I don't think it can compete with silicon at the moment, that's a dream everybody has. Silicon is cheap and plentiful and the best silicon transistors we can make have mobilities that are similar to what I was able to make in these BP devices.”

This doesn't mean that BP isn't worth exploring further though. According to Perello, “The fact that it was so simple to make such an excellent transistor without having access to state of the art commercial growth, fabrication and lithography facilities means that we could make it significantly better. We expect the upper bound for carrier mobility in black phosphorus to be much higher than silicon.”

At present, BP isn't ready for commercial use and its potential has just started to be recognised. If it continues to perform in further tests, it should be strong a contender as a chip material for future technology. ©

Creating a data revolution in Africa

Alcatel-Lucent has focuses the human impact of the network - on technology for growth, innovation and transformation

THE CONTINENT HAS various connectivity needs, crucial for its social and economic development. Increasing the availability of ultrabroadband services is essential for Africa's future development. Becoming digital is an important catalyst for change, for development and innovation. The continent's infrastructure will need greater capacity to deliver highquality ultrabroadband connectivity to support added value services for end users in both urban and remote areas. Alcatel-Lucent has deployed a number of LTE networks in Africa.

What makes Africa very special is that this region is very rich in history, its diversity, different cultures and environments, many strong developments in so many countries, all not at the same speed, a lot of creativity and innovation, but at the same time still plenty of challenges and local issues but with one strong asset who are full of energy: the people of Africa. And Africa's success and prosperity relies on its people. Alcatel-Lucent's history in Africa is also about people. Across the African continent, Alcatel-Lucent has strong teams with excellent local knowledge specialised in a wide array of technologies for both fixed and mobile communications, including fixed and wireless ultrabroadband access, optics and IP technologies as well as services, including deployment services as well as professional and managed services. Our experts on the ground are working with the African ecosystem to introduce new technologies and solutions that will help in developing and creating social and economic value.



Daniel Jaeger, Alcatel-Lucent's vice-president for Africa

UltraBroadband is the most transformative technology since electricity, and one of the most promising assets for governments seeking to boost their economies and social development

A vision for Africa

So what is next for Africa? Already 4G LTE and UltraBroadband networks have enabled a positive change – politically, economically and socially. Moving forward the goals are clear. “For me, Africa is at the heart of tomorrow,” said Michel Combes, Alcatel-Lucent's CEO. He also added, “Becoming digital is an important catalyst for change. The focus of development will continue to bring connectivity to users by working with local, regional and international partners to literally help ‘connect’ the African people.”

UltraBroadband is the most transformative technology since electricity, and one of the most promising assets for governments seeking to boost their economies and social development in an open digital world. It creates opportunities for people to unleash their skills by enriching the way they innovate, do business and share knowledge.

Broadband for all is not only a nice marketing moto but every network has its success is

the reality. Alcatel-Lucent strongly believe that universal access for all will break network barriers to improve the end user mobile broadband experience and that is the only economical way to meet the increasing demand for mobile broadband. Industry and service providers are changing and they need more than a traditional technology vendor but an innovative partner who will accompany them in the race of shaping the future – going forward from breakthrough innovation to proven and excellent operational capabilities in order to meet network requirements. ☺

Managing today's and tomorrow's data centre loads

DEMANDS ON DATA centres continue to rise. Not only do these facilities need to meet security, energy efficiency, business continuity and productivity optimisation needs, but they also have to accommodate the unpredictable future loads on the facilities. The dilemma that many data centre owners and operators face with catering for an anticipated increase in loads is that it leads to stranded plants (i.e. wasted infrastructure and underutilised equipment). Technology, as well as systems and services upgrades, leads to data centre owners investing

capital in equipment that is not needed for several years down the line and this low usage equipment needs to be maintained, adding to the expenses.

According to Pete Greaves, Aurecon's expertise leader for data & ICT facilities, “Besides the high costs for the equipment that was purchased and maintained, stranded plants are also often characterised by equipment that runs inefficiently, which leads to wasted electricity, rising power costs and it also impacts a data centre's sustainability targets. Ten years ago, we were designing data centres for an average

electrical load of 500 kilowatts per square metre. Increased technology, IT demands and smartphones have caused this load to rise, so we are now designing for 1,200 kilowatts per square metre.”

A staged growth approach, argues Greaves, is a more economical approach to manage a data centre's current needs as well as plan and expand according to future needs. It offers numerous benefits over full installs, including greater visibility of capital expenditure needs, lower costs and less maintenance.

Making connections with increasingly clever machines

There is a personal communications revolution underway in Africa, driving new market growth for sophisticated devices

DESPITE THE PERCEPTION that Africa is a feature phone continent, the adoption of smartphone technology over the past two years has been extremely strong, according to recently published data from 51Degrees, a global device detection specialist that has been tracking the devices that access websites across the continent over the past two years for global brands such as eBay, Unilever and Heineken.

The African continent has seen a dramatic decrease in desktop browsing and a significant spike in mobile browsing in the last two years according to the latest research by device detection specialists, 51Degrees. This suggests that the traditional perception that Africa is a continent still using recycled feature phones is inaccurate and will have significant implications for mobile network operators' efforts to manage the growth of data consumption over the mobile networks.

"The smartphone market in Africa is maturing at a faster pace than many commentators expected. The availability of smartphones is transforming the browsing experience from the big screen to the small." -

James Rosewell, CEO and founder, 51Degrees

Since the middle of 2013, the volume of web browsing coming from desktops and laptops has dropped from 85 per cent to less than 60 per cent whilst a quadrupling in browsing coming from smartphones has taken place over the same time period. If this trend continues, smartphone browsing will be larger than non-mobile browsing by the end of 2015. Estimates as to the specific date when this will happen around the world vary but most analysts believe it will take place in 2015, meaning that the African market is not significantly out of step with the rest of the world. With every new generation of



There has been a quadrupling in browsing on smartphones (Photo: Apple)

smartphone consuming 40 per cent more data, year on year, network operators in Africa face the same "data crunch" issues that operators across the globe are experiencing as data demand grows rapidly.

Devices and data delivery

51Degrees provides device detection services to websites. This enables the sites to quickly and accurately identify which devices are browsing their website and deliver a better user experience optimised for individual devices. Since 51Degrees captures almost 4 billion web browsing sessions per month, across more than 1.5 million web servers globally, the aggregated data provides an accurate indication of web browsing activity in different countries and continents around the world.

Over the last 12 months, data from the ten most populous countries in Africa has shown a significant growth in smartphone usage, from less than 25 per cent to almost 40 per cent of all web browsing. Despite the often cited benefits of web browsing on feature phone on the African continent, the data demonstrates that feature phone browsing is negligible (less than five per cent).

James Rosewell, CEO and founder of 51Degrees believes that the vast improvement in

browser user experience that moving from a feature phone to a smart phone provides, explains this figure. "The smartphone market in Africa is maturing at a faster pace than many commentators expected. The availability of smartphones is transforming the browsing experience from the big screen to the small. The user experience on a smartphone is so much easier and more familiar than on feature phones."

Device diversity across smartphones is significantly prevalent in the African continent. Less than one third of all browsing comes from the most popular five handsets in the region, whereas in the UK this figure is 75 per cent and in the US it is 78 per cent. Whilst the most popular devices in the top 10 most populous countries in Africa are broadly similar to those in the rest of the world (dominated by Apple and Samsung) there is a far longer tail of smartphones used in the African continent than in many parts of the world.

One area where web browsing has held steady across the last two years is tablet browsing. This remains at less than 10 per cent of all browsing recorded in Africa, suggesting that the relatively high cost of early tablets has limited adoption in the region. It will be interesting to see if the growth in low cost tablet availability will change this in the future. ©

Les vols d'identité, les attaques soutenues

Gemalto publie les résultats de l'étude Breach Level Index du 1er semestre 2015 portant sur la sécurité numérique

L'ENTREPRISE MONDIALE DE la sécurité numérique, Gemalto publie ce jour les résultats de l'étude Breach Level Index pour le premier semestre 2015, qui fait apparaître 888 failles de données signalées au cours de cette période, compromettant ainsi 246 millions d'enregistrements de données dans le monde.

Gemalto est au cœur de l'évolution du monde numérique. Il permet aux entreprises et aux gouvernements du monde entier d'offrir des services numériques pratiques et de confiance à des milliards de personnes.

Selon l'étude de l'entreprise, aujourd'hui, les failles de sécurité ont augmenté de 10 % par rapport au premier semestre de l'année précédente, alors que le nombre d'enregistrements de données compromis diminuait de 41 % au cours des six premiers mois.

Cette nette amélioration peut être attribuée à la diminution du nombre de méga-failles à très grande échelle ayant touché le commerce de détail et la distribution, comparativement à la même période de l'année écoulée.

Malgré la diminution du nombre de données compromises, les failles les plus importantes ont touché des volumes considérables d'informations personnelles. L'incident le plus important constaté au cours du premier semestre – niveau 10 sur l'échelle de gravité du Breach Level Index –, a concerné un vol d'identité dont a été victime l'assureur-santé Anthem Insurance aux États-Unis, qui a impacté 78,8 millions de fichiers, soit le tiers (32 %) de l'ensemble des fichiers de données volés au cours du premier semestre.

Parmi les autres failles notables recensées au cours de la période d'analyse,

il faut citer une attaque touchant 21 millions de fichiers de l'US Office of Personnel Management (9,7 sur l'échelle BLI) ; une attaque touchant 50 millions de fichiers de la Direction générale de la population et des affaires de la citoyenneté en Turquie (9,3 sur l'échelle BLI) ; et une défaillance affectant 20 millions de fichiers du site de rencontre russe Top Face (9,2 sur l'échelle BLI). Les dix principales cyber-attaques ont représenté 81,4 % de l'ensemble des fichiers compromis.

Incidents par source

Le nombre d'attaques conduites à l'instigation ou avec la bénédiction d'un État ou d'un service gouvernemental n'ont représenté que 2 % de l'ensemble des incidents enregistrés. Le nombre de fichiers affectés par ces épisodes représente toutefois 41 % de l'ensemble des fichiers compromis, en raison notamment de l'attaque ayant ciblé Anthem Insurance et l'US Office of Personnel Management. Alors qu'aucune des dix principales failles enregistrées au premier semestre 2014 n'était le résultat d'une action soutenue par un État, trois des principaux incidents recensés cette année ont été menés à l'instigation de services gouvernementaux – et notamment les deux premiers en termes de sévérité.

Les intrusions malveillantes menées à titre individuel ont cependant été la principale cause des failles de données enregistrées au premier semestre 2015, représentant 546 ou 62 % des attaques informatiques, contre 465 ou 58 % au premier semestre de l'année écoulée. 116 millions (soit 46 %) des fichiers affectés globalement l'ont été en raison d'intrusions malveillantes, ce qui constitue un net recul

sur les 298 millions d'incidents (71,8 %) répertoriés en 2014.

Incidents par type

Le vol d'identité demeure, au premier semestre, la principale cible des cybercriminels, représentant 75 % de tous les fichiers affectés, et un peu plus de la moitié (53 %) des failles de données enregistrées. Cinq des dix principales failles, y compris les trois premières – toutes trois classées au niveau « catastrophique » sur l'échelle BLI –, ont porté sur des vols d'identité, contre sept sur dix au cours du premier semestre 2014.

Incidents par secteur

De tous les domaines d'activité recensés, les secteurs gouvernementaux et de la santé ont payé le plus lourd tribut à la cybercriminalité, puisqu'ils représentent environ les deux tiers (31 % et 34 % respectivement) des fichiers de données compromis.

La santé ne représente toutefois que 21 % des atteintes informatiques enregistrées cette année, contre 29 % au cours du premier semestre de l'année précédente. Le secteur du commerce de détail et de la distribution connaît une nette diminution du nombre de fichiers volés, représentant seulement 4 %, contre 38 % au cours de la même période de l'année écoulée. En termes de localisation géographique, les États-Unis sont le pays le plus touché, avec plus des trois quarts (76 %) des failles de données enregistrées, et près de la moitié (49 %) de l'ensemble des fichiers affectés par des attaques. La Turquie représente 26 % des compromissions de données, avec notamment une attaque massive ciblant la Direction générale de la population et des affaires de la citoyenneté, au cours de laquelle quelque 50 millions de fichiers numériques ont été forcés dans le cadre d'une intrusion malveillante.

Le niveau de chiffrement utilisé pour protéger les données exposées – capable de réduire considérablement le nombre et l'impact des failles de données –, a légèrement augmenté et se situe à 4 % pour toutes les attaques enregistrées, contre 1 % au cours du premier semestre 2014. ©

Les failles de sécurité ont augmenté de 10 % par rapport au premier semestre de l'année précédente, alors que le nombre d'enregistrements de données compromis diminuait de 41 % au cours des six premiers mois ; cette nette amélioration peut être attribuée à la diminution du nombre de méga-failles

Innovation and applications across African operations

The 2015 edition of AfricaCom offers a significant technological showcase of equipment and software to serve the continent's connected communities

TAKING PLACE IN South Africa's Cape Town International Convention Centre (CTICC), 17-19 November the 2015 edition of AfricaCom is the continent's largest communications conference and exhibition, attracting 10,000 delegates. The conference programme covers the most strategic issues affecting companies in Africa's digital market - services, efficiency, profitability, customer experience, partnerships, policy and more – and features several co-located events: VSAT Africa, TV Connect Africa, LTE Africa and Apps World Africa.

Applications in Africa

Africa is playing a significant role in mobile app development, and not only with applications aimed at improving the user's social media experience. Rather, Africa-centric apps are aimed at making a positively tangible intervention in the daily lives of people on the continent.

Many areas in Africa are less advanced in terms of telecommunications infrastructure of the so-called 'established' world. This shortfall has inspired a rush to create and deploy mobile applications to fill some of the crucial societal needs that people living in developed countries take for granted.

M-Pesa - the mobile money app - is a good example. In Africa many people do not have easy access to a bank, M-Pesa allows users to

send and receive money via their cell phones. This means people do not have to travel for hours to get to a bank, and they do not have to risk carrying around cash.

Another simple yet ingenious - and typically 'Afrocentric' - application that directly improves people's lives is called ICow. This app sends relevant, up-to-date information to subsistence dairy farmers who own only one or two cows. The information helps them to increase their milk yield, keep their livestock healthy and sell their excess supply.

Due to the significance of the app industry to the continent, 'Apps World Africa' will once again be an important focus at the 2015 AfricaCom Conference. Senior producer at Apps World Katie Bilton said, "Our conference agenda is jammed packed with the latest content for developers, entrepreneurs and start-ups to learn and expand their knowledge, including a free Android coding lab and building an app in the quickest amount of time possible using the smallest amounts of data, an important consideration across the continent."

Issues around how to effectively monetise apps, increase the return on investment (ROI) and strengthen business models, will be key discussion topics, said Bilton.

"Other topics will outline some of the mistakes made by developers when optimising their apps; how to provide security to prevent hacking sensitive data; and how to customise

their approach for different platforms and how developers and MNOs can work together."

Panellists for these sessions include experts in the industry such as: Su Kahumbu, founder, iCow; Ethel Cofie, founder, Women in Tech Africa; Andrew McHenry, co-chairperson, Mobile Monday Johannesburg; Alon Lits, Uber's general manager in Sub-Saharan Africa; and Sebastien Crozier of Orange. The sessions will take the form of round table and panel discussions.

They say the proof is in the pudding and in 2015, Apps World Africa's own networking app will assist developers connect with like minds

It's an Apps World

Apps World Africa 2015 reflects on the incredibly rich and diverse market that Africa has now become. The show develops year on year to represent the impact that Cloud and IoT are now having on the developer community of South Africa. Run in partnership with Silicon Cape and with the longstanding support of Google it is a premier showcase of developers in sub-Saharan Africa. And it is the only event featuring case studies from leading African developers, telcos, OEMs, brands, app stores and social media platforms. Co-located with AfricaCom, which itself is focused on the future of Africa's digital economy, Apps World Africa is regarded as the most influential meeting of its kind in the region and an opportunity to meet leading figures from the community. ☺

Liquid Telecom gains MEF Carrier Ethernet 2.0 Certification

PAN-AFRICAN FIBRE OPERATOR Liquid Telecom has become the first such company to receive the MEF Carrier Ethernet 2.0 (CE 2.0) services certification.

MEF is the global industry alliance and defining body for Carrier Ethernet. Its mission is to accelerate the worldwide adoption of Carrier-class Ethernet networks and services. It conducts a comprehensive testing programme for the services and products of both vendors and operators.

Over a period of four months, the MEF-approved test lab, Iometrix, extensively tested and independently verified Liquid Telecom's E-Line service delivered over its fibre network

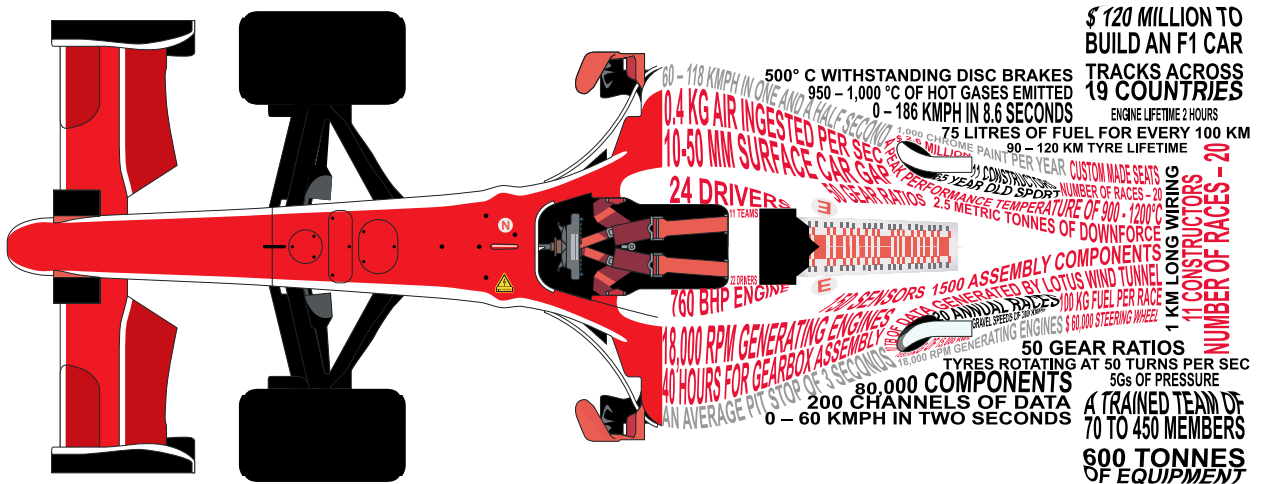
which currently spans 20,000km crossing borders from the tip of Uganda to Cape Town – and expanding at the rate of around 100km a week.

The certification confirms that Liquid Telecom has built a high-quality, robust and resilient network that meets the industry's top global standard for Carrier Ethernet. For Liquid Telecom's customers – wholesale, retail and enterprise - the certification confirms and guarantees SLAs, network transparency, latency and a host of other performance indicators.

Ramzi Shalak, group chief of networks, at Liquid Telecom, said "This MEF CE 2.0

certification shows that the design, quality and performance of our Carrier Ethernet services are consistent globally, and conform to the highest and most up-to-date industry standards. Liquid Telecom is now even better positioned to help enterprise and carrier customers around the world to grow their business and expand into new markets in Africa."

Nan Chen, president of the MEF, said, "The MEF congratulates Liquid Telecom for the outstanding achievement of meeting the demanding performance requirements of MEF CE 2.0 certification for the company's E-Line Service."



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Snapdragon processors drive demand for affordable mobile devices

QUALCOMM TECHNOLOGIES HAS reached a milestone for its Qualcomm Snapdragon 410 and 210 processors. Within the first year of its commercial launch, the Snapdragon 410 processor, which brought 64-bit computing power and LTE connectivity to emerging regions, is now available in more than 550 mobile device designs. The Snapdragon 410 processor has also shipped more than 200 million units globally from more than 60 OEMs. Additionally, the Snapdragon 210 processor has been included in more than 200 designs either shipped or in the device pipeline. The Snapdragon 210 processor is the first commercial processor for mobile in its class to deliver 4G LTE connectivity to developing regions, while the 410 is the first commercial processor for mobile to provide 64-bit computing to the sub-US\$150 pricing point.

Both Snapdragon processors have been designed to provide the most value to consumers in developing regions around the world.

Yahsat moves closer to creating new connections across Brazil and Africa

SATELLITE OPERATOR YAHSAT recently completed a critical design review (CDR) of its satellite Al Yah 3. The CDR is conducted during the engineering and manufacturing development phase, and completion of this indicates that all specifications and requirements have been captured into the overall final design of the satellite.

Masood M Sharif Mahmood, chief executive officer at Yahsat, said, "Our third satellite will fuel growth in our business, and significantly expand our coverage area to be a truly global company; all this is in direct response to exceptional customer demand."

Emirati engineer, Adnan Al Muhairi, Al Yah 3 satellite project manager, said, "It has been a tremendous learning experience for me being based at the manufacturing facility in the USA. Having the opportunity to work hands on throughout this process, and to see how our hard work is paying off with the successful completion of this review just adds to my excitement about the upcoming launch."



Al Yah 3 will drive business growth at Yahsat

Cloud to continue to contribute to commerce

CISCO RECENTLY RELEASED the findings of a global study that indicates cloud is moving into a second wave of adoption, with companies no longer focusing just on efficiency and reduced costs, but rather looking to cloud as a platform to fuel innovation, growth and disruption. The study finds that 53 per cent of companies expect cloud to drive increased revenue over the next two years. Unfortunately, this will be challenging for many companies as only 1 per cent of organizations have optimized cloud strategies in place while 32 percent have no cloud strategy at all.

The Cisco-sponsored InfoBrief 'Don't Get Left Behind: The Business Benefits of Achieving Greater Cloud Adoption' was developed by International Data Corporation (IDC) and is based on primary market research conducted with executives responsible for IT decisions in 3,400 organisations across 17 countries that are successfully implementing private, public and hybrid clouds in their IT environments.

Nick Earle, senior vice president, global cloud and managed services sales at Cisco, said, "As we talk with customers interested in moving to the second wave of cloud, they are far more focused on private and hybrid cloud—Primarily because they realise that private and hybrid offer the security, performance, price, control and data protection organisations are looking for during their expanded efforts. This observation, which drove our strategy to build a portfolio of private and hybrid infrastructure and as-a-service solutions, is reflected in the new IDC study, which shows that 44 per cent of organisations are either currently using or have plans to implement private cloud and 64 per cent of cloud adopters are considering hybrid cloud."

Lumata's advertising solution helps telcos target customers

SOFTWARE AND SERVICES specialist Lumata recently launched a new product, 'Expression Target', under its Expression suite of products to unlock the advertising potential of telco customer data. With this self-service solution, advertisers can target a telco's opted-in subscriber base for marketing initiatives such as driving footfall, raising awareness and acquiring customers.

The solution aims to deliver personalised, secure and targeted advertising at the click of a button for advertisers, while maintaining 100 per cent privacy of all personally identifiable information (PII) about subscribers. Targeting variables include age, gender, location, device types, usage behaviour, purchasing power and lifestyle

preferences, making this a powerful acquisition channel.

Expression Target opens a new revenue stream for a telco and positions the Telco as a key player in the mobile advertising ecosystem. With a decade of experience in mobile advertising, Lumata is uniquely placed to support a Telco in the journey of data monetisation through advertising. Adhish Kulkarni, CMO, Lumata, said, "It's a win-win for both Advertisers and Telcos who are seeking new revenue streams in the face of stagnant or declining growth of traditional voice and messaging products. Advertisers have a huge opportunity to target opted-in Telco customers while allowing the Telco to maintain customer anonymity and data privacy."

Aite Group and Mahindra Comviva assess increased uptake of mPOS across verticals

MOBILITY AND MOBILE financial solutions enterprise Mahindra Comviva has released a study in association with the Aite Group, an independent research and advisory firm, outlining the evolution of mobile point-of-sale (mPOS). The study discusses the development of mobile point-of-sale (mPOS) acceptance methods, from their origins, as electronic payment services for small merchants to a channel used by larger enterprises to extend and enhance their customer service.

The study is based on the analysis of interviews done with various leading organisations active in the payments industry. This also includes primary research done by leading researchers across the globe to understand the evolution and demand patterns of mPOS acceptance methods across industries.

The study indicates that cards will account for 273bn transactions at a combined value of some US\$30tn by 2018. However, as mPOS grows, new forms of payment will flourish, including NFC-enabled mobile devices bringing greater flexibility to payment acceptance. The report draws attention to the next generation of mobile based payment services benefiting from mPOS. NFC capability coupled with flexibility is a powerful aspect of the next generation of mobile payment acceptance devices. Aite Group research indicates that from 2015 to 2018, contactless mobile transactions have the potential to reach four to five per cent of retail payments with growth in transaction volume accelerating after 2020.

Autour de l'arrivée de TCC, et des approches innovantes

Publicis Groupe fait un grand bond en Afrique du Sud avec l'acquisition d'un groupe intégré d'agences marketing

PUBLICIS GROUPE A récemment acquis The Creative Counsel Group (TCC) le plus grand groupe intégré d'agences marketing d'Afrique du Sud, procurant des solutions marketing et d'activation aux clients locaux aussi bien qu'internationaux.

Fondé en 2001 par ses coprésidents actuels Ran Neu-Ner et Gil Oved, The Creative Counsel Group s'appuie sur l'expertise de plus de 1500 professionnels et travaille avec les plus grands clients nationaux et internationaux tels qu'Unilever, Vodacom (Vodafone), Microsoft, Brandhouse et Tiger Brands.

Cette acquisition permet non seulement à Publicis Groupe d'accroître sensiblement sa présence en Afrique du Sud ; elle le propulse loin devant la concurrence, que ce soit en termes d'ampleur ou de profondeur de son offre de services sur ce marché et ce, sur toute la chaîne de valeur.

Des services globaux

TCC offre des services globaux incluant création, stratégie et mise en œuvre de commercialisation et d'activation, organisation de conférences et d'événements de grande ampleur, analyses et stratégies du marché de la grande consommation, programmes de fidélisation, merchandising et marketing sur les points de vente.

Par ailleurs, l'apport de TCC vient précisément compléter et renforcer Publicis Worldwide sur ce marché en offrant à ses clients et à leurs marques plus d'expériences transformatrices grâce à des ressources en marketing promotionnel et expérientiel à grande échelle, ressources essentielles à leur développement.

La structure et le savoir-faire

TCC complète la structure et le savoir-faire de Publicis Africa Group, agence multi-door de Publicis Groupe en Afrique, établie dans 35 pays. TCC vient renforcer les disciplines traditionnelles et numériques qui aideront les marques des clients à atteindre leurs consommateurs, où qu'ils se trouvent.

The Creative Counsel Group fera partie du réseau Publicis Worldwide, dirigé par Arthur Sadoun, CEO. Ran Neu-Ner et Gil Oved reporteront directement à Kevin Tromp, Président de Publicis Africa Group.

Arthur Sadoun, CEO de Publicis Worldwide, déclare : « Avec l'arrivée de TCC, nos clients auront accès aux approches les plus innovantes pour promouvoir, intéresser et initier les marchés cibles à leurs produits et services. Cette transaction stratégique fait de Publicis

« Avec l'arrivée de TCC, nos clients auront accès aux approches les plus innovantes pour promouvoir, intéresser et initier les marchés cibles à leurs produits et services. Cette transaction stratégique fait de Publicis Worldwide le premier réseau créatif en Afrique, continent clé pour notre futur développement » - Arthur Sadoun, CEO de Publicis Worldwide

Worldwide le premier réseau créatif en Afrique, continent clé pour notre futur développement ».

Kevin Tromp ajoute : « La conjugaison de la taille de TCC, de sa très forte culture entrepreneuriale et de sa connaissance approfondie du consommateur africain à tous les niveaux, est un excellent complément à la sophistication de l'offre mondiale de Publicis, sa réelle orientation vers le numérique et sa compréhension des différences culturelles. Cette union donne naissance à la structure la plus puissante sur le continent en matière d'activation et de marketing expérientiel visant à faire vivre les marques d'une façon pertinente et culturellement appropriée pour nos clients et leurs consommateurs.

Ran Neu-Ner et Gil Oved, cofondateurs et coprésidents de The Creative Counsel Group, ajoutent : « L'intérêt est aujourd'hui plus orienté vers le consommateur que vers la marque. Nous voulons marquer les cœurs et les esprits très concrètement et de manière personnalisée, que ce soit sur les points de vente, à travers l'utilisation du numérique ou par tout autre moyen qui impacte la façon dont le consommateur agit ou effectue ses achats. Ce qui est stimulant, c'est que la publicité "non traditionnelle" est en constante évolution et ultra-dynamique. Tous les jours, nous nous demandons ce que nous allons réaliser de différent par rapport à la veille. Rejoindre Publicis Worldwide nous permet de porter à l'échelle mondiale notre offre et notre combinaison unique de compétences conceptuelles et opérationnelles. Publicis Worldwide est le champion de la fusion entre numérique, création, stratégie et réflexion avant-gardiste, et donc pour nous, c'est le Big Brother que nous avons toujours rêvé d'avoir. » ©

La Fnac annonce l'ouverture de magasins en Afrique subsaharienne, à Abidjan en Côte d'Ivoire

CONSCIENTE DU FORT potentiel de croissance de cette région ainsi que de la réelle appétence dans beaucoup de ces pays pour les biens culturels et les produits techniques, la Fnac amorce son développement en Afrique par l'ouverture en décembre 2015 et février 2016 de deux magasins en franchise à Abidjan. Dans cette perspective, elle pourra s'appuyer

sur la puissance et l'expertise du Groupe Prosuma, acteur majeur de la distribution en Côte d'Ivoire.

Pour effectuer ses premiers pas sur ce continent, l'enseigne a choisi de s'implanter dans un pays francophile à forte croissance.

Ces deux nouveaux magasins présenteront l'ensemble des produits et des services

proposés par la Fnac : livres, disques, DVD, gaming, billetterie, micro-informatique, téléphonie, objets connectés, son, photo, TV, jeux / jouets. Ces nouvelles ouvertures viennent renforcer la stratégie d'expansion du groupe Fnac à l'international, laissant entrevoir de nouvelles opportunités pour l'enseigne dans une région à fort potentiel de développement.

Digital innovations at IBC introduce new market drivers

This year's edition of a key European broadcasting event deepens convergence between transmission, reception, and communications technologists

WITH A CLAIMED 55,128 visitors from more than 170 countries, and 1,800 exhibiting companies, IBC2015 was the largest and best attended since the convention was first held in 1967. The exhibition and its parallel conference were held mid-September at the RAI Centre, southern Amsterdam.

With Amazon and Netflix already offering online television content at 4K horizontal resolution, a central theme of this year's exhibition and conference was the increasing focus on 4K production and processing capabilities. Programme-makers are already showing serious interest in 4K content origination because this potentially extends the commercial life of the resultant programmes compared with shooting at lower video resolution. Broadcasters, however, are being more circumspect in their attitude to 4K given the need for higher transmission data rates or counterproductive amounts of data compression. Channels which only recently advanced from standard definition into high definition are naturally being cautious about funding another round of upgrades. They can afford to be; the upconverters in many modern consumer 4K television displays are excellent.

Both the IBC2015 show floor and the conference presentations reflected increasing interest in delivering improved dynamic range to match the increasing performance capabilities of consumer and professional television displays. Dolby Laboratories has been promoting high dynamic range video processing for several years. The question inevitably arises of how to deliver that extended performance on affordable consumer television displays. Two impressive jaw-droppers at the show were a pair of LED-backlit 4K LCD screens on the Samsung stand, both delivering the very high picture quality hitherto achievable only with OLEDs. The Samsung LED screens were bright, the colour quality was excellent and the black areas showed no sign of backlight show-through. This technology might prove a serious alternative to the relatively high price of OLED television receivers and monitors.

The relative merits of capital expenditure (capex) and operational expenditure (opex) were another key theme this year. The opex model is obviously not new; I recollect one major broadcast software vendor discussing the potential of supplying software on a per-project or per-hour leasing based back in the mid 1980s during a Montreux Television Symposium.

PlayBox Technology announced CloudAir which streamlines workflows to deliver television from the cloud. Available either on a standard licensing or software-as-a-service basis, CloudAir is designed for start-up ventures, established television channels and anyone who wants to deliver content, from a single event to a full-scale television channel. Tata Communications announced during IBC2015 that it had chosen CloudAir to support a new cloud-based broadcast playout service.

Vidcheck launched Vidcheck OnDemand for its Vidchecker and Vidfixer media file analysers, giving the first ever full opex model for automated quality control. This option allows customers to purchase Vidcheck QC Units to auto-check the amount of content they are processing: the number of QC Units used is directly related to content duration. Users only need to buy what they need. The Vidchecker/Vidfixer user interface shows the QC Unit meter and provides usage metrics. A Grid Cloud option combines multiple Vidchecker/Vidfixer nodes, allowing many media files to be processed concurrently.



Samsung's HDR TV display at IBC2015

Eyeheight announced that its broadcast compliance plug-ins were now being offered on an opex basis. Customers can select timed licences for one day, one week, one month, three months or six months. Eyeheight considers that the opex approach will be appreciated in cases where accounting is for a specific project. Large-scale users are expected still to prefer the capex funding model.

Remote camera control continues to attract serious investment, both for onsite studio and long-distance operation. Ikegami announced the HDL-57 compact high-definition camera, designed for use on remotely controlled pan/tilt heads in applications such as parliamentary television or robotic studios. It can also be used wherever a fixed-position compact camera is required for intercutting with the output from full-size studio cameras. Camera head and controller are housed in a single compact unit.

IDX introduced a multi-way compatible lithium-ion battery charger. The LC-2A is a dual channel unit with interchangeable interface plates compatible with 7.2/7.4 volt Canon, Panasonic, and Sony batteries. It simultaneously charges two batteries in any combination of compatible models and operates from any 100-240V AC power source.

Leader demonstrated a new addition to its range of broadcast test instruments. The LV 5480 is a multi-format waveform monitor capable of displaying and evaluating signals from up to four 3G-SDI input channels simultaneously. It can be upgraded quickly and easily to the full 4K feature set of the LV 5490, including 4K pattern generator, eye pattern and digital audio card. Capabilities include waveform, vector and picture monitoring, an event log, data dump and four-channel timing display. An SDI signal status facility looks for cyclic-redundancy-check errors and embedded-audio errors. Leader's CINELITE II toolset also comes as a standard feature, allowing easy assessment of relative exposure and overall luminance.

Custom Consoles introduced a new version of its EditOne desk, claimed to be highly cost-efficient. Developed for use in video editing suites and broadcast graphics areas, this goes beyond the traditional rectangular configuration by using sculpted MDF support panels rather than metal legs. The curved theme is carried through to the desktop and a raised monitor shelf. The entire EditOne range of furniture is designed for flat-pack delivery. Also introduced was MediaPost, a free-standing monitor display mount for situations where the company's established MediaWall would be too large.



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Hiltron Communications exhibited its latest-generation satellite communications controller, the ComSys-Core (HCS-Core). This is designed to form the central control element for satcom applications such as easy switchover between downconverters, high-power amplifiers, waveguides, MPEG digital video broadcast encoders and integrated receiver/decoders. The HCS-Core can also be used to power, control and monitor optical-fibre transceivers and to monitor and control antenna heating.

NTP Technology announced the Blue | Net AoIP and MADI audio routing control system. Blue | Net was demonstrated as the core of a stand-alone router control configuration for Dante compliant audio over IP with a router structure using an IP network as audio back bone as well as a router configuration using Penta 720 as a 1Kx1K MADI Main router. Blue | Net incorporates NTPs QNX-based RCCoreV5 router control software. This provides database-driven control with full integration of the Dante routing API, running either on the NTP 635 redundant controllers or as a virtual application on a standard Windows server.

Live event broadcasting

Phil Tudor, P.J. Brightwell and R.N.J. Wadge (BBC, UK) outlined future models for live event broadcasting based on a transition to IP content creation and distribution:

"Profound change to the way media is produced, distributed and consumed is upon us. For live events, this offers new opportunities to provide audiences with richer and more compelling experiences. Next-generation technologies such as 4G broadcast, virtual reality and immersive viewing and listening spaces will allow audiences to enjoy an event as much as those at the venue (or possibly better than being there). Furthermore, consumers will have a more personalised relationship with the production, receiving the content and data of interest to them, while still benefitting from a properly authored experience.

"The kinds of user experiences we have been researching fall into three categories:

- Dynamic, responsive and personal content. While linear, scheduled programmes will continue, the content will exist in a form that is capable of being recapped and presented in a way that responds to the audience member, their time and context and the devices(s) they are using.
- Audience as explorers. It will be possible to capture a 'digital space' and give audiences the ability to explore that environment. New 'media playgrounds' emerge.
- Co-creators and collaborators. As production tools move into the internet, it will be possible for everyone to access production environments. Broadcasters can embrace this to widen our audience's involvement in our content.

"To investigate the approach of the IP Studio project at scale, BBC Research & Development demonstrated a live ultra-high definition outside broadcast made using end-to-end IP for the duration of the 2014 Commonwealth Games in Glasgow. Live video and audio were delivered from three games venues to a public exhibition at the Glasgow Science Centre and broadcast via the department's trial of UHD distribution. This provided a test of a live production distributed across three UK cities and synchronised wherever it was needed for viewing and broadcast distribution. This enabled facilities and staff to be located according to operational need, and reduced the numbers required at each competition venue. For example, the audio production and commentary position were located in London.

"Four UHD cameras operating at 3840 x 2160p50 were used to provide coverage of the games' opening ceremony, rhythmic and artistic gymnastics heats and finals, and boxing and netball finals. This was separate from the main HD programming provided by the host broadcaster, SVGTV.

"Extensive use was made of BBC Research & Development's software framework developed by the IP Studio project. Each camera was connected to a local IP Studio video capture node via a quad 3G HD-SDI

link. Each capture node was configured to provide two multicast RTP flows using H.264 I-frame only compression: a primary UHD flow at 800 to 1,200 Mbit/s, and a downconverted HD proxy flow at 100 Mbit/s. Audio capture nodes produced uncompressed audio flows from the host audio feeds supplemented with additional local microphones.

8K transmission via satellite

Y. Sugito and colleagues (NHK, Japan) provided an update on preparations in progress for 8K broadcasting. H. Sakate (Mitsubishi Electric Corporation, Japan) and colleagues then outlined an HEVC/H.265 codec designed to deliver 8K to the viewing public:

"Satellite-based 8K test broadcasting will begin in 2016 and 8K broadcasting is planned to begin by 2018. 8K broadcasting is expected to become common in 2020, the year of the Olympic and Paralympic Games in Tokyo.

"A new video coding scheme, referred to as High Efficiency Video Coding (HEVC)/H.265, was standardised in 2013. HEVC supports 8K video formats and achieves approximately twice the compression level of the existing Advanced Video Coding (AVC)/H.264 scheme. The cost of HEVC encoding and decoding is reported to be more than twice that of AVC. This makes realisation of real-time HEVC processing challenging. We have developed the world's first 8K HEVC/H.265 real-time codec (encoder and decoder) system that complies with the domestic standards. The system allows 22.2 ch audio coding and video/audio multiplexing, with these functions integrated into the video encoder and decoder. The system was tested in 2015 by transmission experiments using a broadcast satellite.

"To enable real-time processing, each video frame is spatially divided into 17 horizontal strips, and these strips are encoded in parallel. The encoder consists of 17 encoding boards. Each encoding board processes a single strip, and adjacent boards share the motion information needed for encoding. This method of partitioning was chosen based on factors such as the transmission capacity of shared motion information between encoding boards, the pixel count for the 3G-SDI standard, and the convenience of a wider horizontal motion search range.

Looking beyond SDI

"The broadcast industry is facing fast-paced change away from dedicated broadcast technology towards software-driven systems running on commercial off-the-shelf IT based servers and software-defined network infrastructure," commented Peter Thomsen, deputy managing director of Danmon Group Systems. "This transition has reached the point where IP based infrastructure looks likely to supplement SDI-based video infrastructure on an increasing scale. Looking beyond the next two to three years, that transition could even become total.

"Likewise UHD has progressed from being a subject for discussion into a basis for real business and is planned for inclusion in new television infrastructures. UHD offers television producers the chance to operate on a practically level playing field with digital cinematographers in terms of the quality they can deliver to their viewers. This opens up great prospects in outside broadcast coverage of sports and live-stage music events as well as high-budget drama.

"Workflow orchestration is becoming the key to the effective introduction of these technologies. The next challenge will be the deployment of API (application programming interface) integration to combine systems from multiple vendors via an enterprise service bus or maybe via the FIMS (Framework for Interoperability of Media Services) project.

"The impact on the systems integration sector is that our offer is becoming more oriented towards delivering experience and knowledge-based services than ever before. Success is about exploring the many opportunities arising from the combining technology in original ways. It is about best-practise and resources to transform ideas into reality in a speedy and secure manner." ©

David Kirk



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Autour d'un nouveau modèle numérique

Orange Digital Ventures investit dans Chain, premier fournisseur mondial de solutions technologiques de blockchain

AVEC SA PARTICIPATION au financement de Chain aux côtés de leaders du secteur de la finance, le fond corporate d'Orange entend soutenir le développement à l'international de cette entreprise et étendre l'utilisation de la technologie blockchain à d'autres domaines, comme l'internet des objets ou les services télécoms.

Des entreprises numériques

Orange investit dans Chain aux côtés de plusieurs autres entreprises, notamment NASDAQ, Visa, Citi, Capital One et Fiserv. Le consortium aura investi la somme totale de 30 millions de dollars dans Chain.

Les nouveaux partenaires de Chain rejoindront également la société pour former un groupe de travail sur la technologie blockchain, qui aura pour objectif d'explorer ses applications sur les marchés adressés par le consortium et d'adopter une approche collaborative dans le développement de nouvelles solutions.

Orange, grâce à son équipe dans la Silicon Valley a déjà travaillé et soutenu les systèmes de blockchain avec des start-ups, dont Chain, et d'autres grandes entreprises avec l'initiative « Orange's Chainforce ».

Des transactions, de sécurité

La blockchain est un nouveau modèle de transfert d'informations ou « d'actifs » numériques remplaçant les intermédiaires par

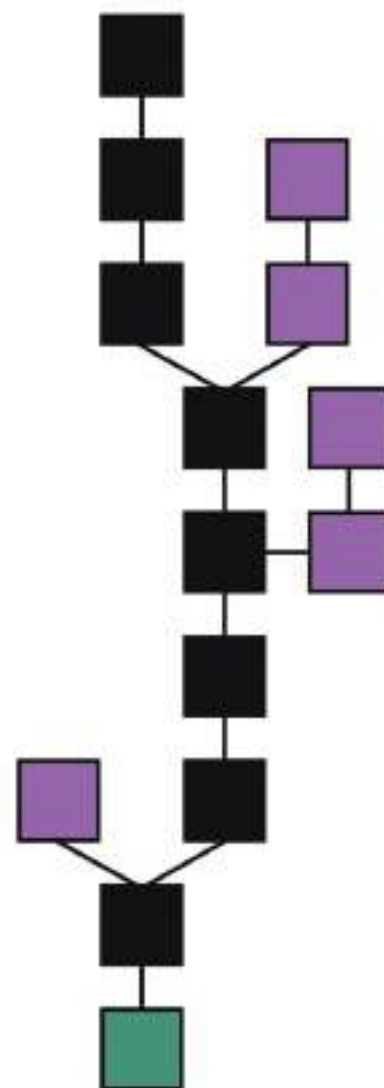
Orange Digital Ventures sélectionne et finance de jeunes start-ups aux premières étapes de leur développement. Avec une enveloppe de 20 millions d'euros pour sa première année, Orange Digital Ventures investit par le biais de participations minoritaires. L'objectif est de financer les start-ups travaillant sur les nouvelles transformations de demain dans l'industrie du numérique et des télécoms, grâce à des technologies de rupture innovantes et à de nouveaux modèles économiques. Orange Digital Ventures soutiendra tout particulièrement les start-ups travaillant dans les domaines des nouvelles connectivités, du cloud et des données d'entreprises, de l'internet des objets et des Fintech, toutes zones géographiques confondues.

le biais de réseaux sécurisés, chiffrés et décentralisés. Cette technologie permet aux détenteurs d'actifs d'effectuer des transactions instantanément et en sécurité. Cette technologie peut faciliter l'émission et le transfert de types d'actifs très variés, comme des titres financiers, des cartes cadeaux, du crédit mobile, des points de fidélité ou encore des crédits d'énergie. Les transactions sont enregistrées automatiquement sur un registre partagé par l'ensemble du réseau, améliorant la transparence du système pour les émetteurs, les propriétaires et les régulateurs de ces actifs. De plus, l'utilisation de signatures cryptographiques réduit les risques, permet de se protéger de toute fraude et fait des transferts effectués sur la blockchain une alternative crédible aux systèmes centralisés disponibles aujourd'hui.

Chain collabore étroitement avec plusieurs des plus grandes institutions au monde pour concevoir, déployer et exploiter des réseaux blockchain spécialement créés pour des marchés et des actifs particuliers. Ces réseaux privés, qui n'utilisent pas la monnaie bitcoin mais se basent sur le même protocole ouvert, sont interopérables entre eux ou avec d'autres normes open source de blockchain.

« Nous croyons au potentiel de rupture de la blockchain. Devenir un partenaire clé et un investisseur de Chain nous permettra d'apprendre plus vite et de lancer des essais autour de cette technologie, se réjouit Pierre Louette, Directeur général adjoint d'Orange et président d'Orange Digital Ventures. Nous souhaitons intégrer les nombreuses utilisations de ce système à notre palette d'activités afin d'améliorer nos services existants et d'en proposer de nouveaux à nos clients. »

Adam Ludwin, PDG de Chain a déclaré : « Nous sommes ravis de nous associer à Orange pour explorer les usages des réseaux blockchain dans le marché des télécoms. Nous



croyons que ces nouveaux réseaux permettront de simplifier le transfert de données entre les opérateurs et activer de nouveaux services qui permettront d'améliorer l'expérience des utilisateurs finaux ». ©

Chain Inc. travaille avec les principales institutions financières pour construire et déployer des réseaux blockchain qui permettent le transfert simple, programmable et en peer-to-peer d'actifs numériques. La plateforme, qui est basée sur le protocole Bitcoin ouvert et interopérable, permet aux institutions de créer, d'émettre, stocker et transférer des actifs numériques sur des réseaux privés spécialement conçus pour un usage donné. La société, qui est tout à la fois un partenaire stratégique et une plateforme technologique, offre une gamme de solutions, allant d'un environnement et des outils de développement pour un prototypage rapide à la sécurisation des nœuds du réseau pour les systèmes lancés en production. Chain est basée à San Francisco.

Integrating IP for powerful payout

PLAYBOX TECHNOLOGY'S NEW CloudAir virtual application is being used by Tata Communications to support its new cloud broadcast playout service. The new broadcast playout service, originally announced at NAB 2015 as part of Tata Communications' cloud-based media ecosystem platform, was launched in September 2015 and is accessible under full IP-based connectivity control to customers globally.

"We are very pleased to be co-operating with such a large-scale service provider as Tata Communications," adds Don Ash, PlayBox Technology managing partner and director of sales.

"Television is a tremendously powerful communications medium, hitherto held back by what were perceived to be high start-up capital costs. Tata Communications' cloud-based broadcast playout service model opens the door to a limitless number of television channels dedicated to specific themes or supporting business ventures of practically any scale.

Today, over 24 per cent of the world's Internet routes travel over Tata Communications' network and the company is the only Tier-1 provider that is in the top five by routes in five continents.

PlayBox Technology is an international communications and information-technology company serving the broadcast and corporate sectors in more than 120 countries. It is dedicated to the research, design, development and provision of the best products, systems, solutions and services. With over 15,500 TV and branding channels powered by PlayBox Technology, the chances are you will have experienced our broadcast solutions for yourself.

Users cover a wide range of today's broadcast activities and include start-up TV channels, webcasters, DVB (IP/ASI) TV channels, interactive TV and music channels, film channels, remote TV channels and disaster recovery channels as well as satellite, local, regional, national and international broadcasters.

CloudAir from PlayBox Technology is a universal television playout and streaming system designed for continuous unattended operation. Every clip in the playlist, except the one which is currently playing, can be trimmed, edited or repositioned. Playlist order can be changed on-the-fly using commands such as skip-to-next or jump. Changes are performed seamlessly without stopping current playout session. Live productions are facilitated by a Live Show clipboard which allows insertion and/or execution of various events or live streams. CloudAir accepts MPEG1/2/H.264, HDV and DV streams from practically every known production platform providing AVI, MPEG, WMV, Quick Time or MXF content. Files from third-party servers are natively supported. CloudAir also delivers on-air graphics which can be controlled interactively.



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Meet us at AfricaCom 2015
Stand E12

Infracom Telecom's diversified wireless product portfolio addresses smart cities' and gated communities' requirements!

INTRACOM TELECOM IS a global telecommunication systems & solutions vendor operating for over 35 years in the market. During its nearly four decades of history, the company has successfully participated in major ICT projects worldwide and has received awards and distinctions for its technologies and work environment. Infracom Telecom employs over 1,900 highly-skilled professionals and operates own R&D and production facilities. Its subsidiaries span across Europe, Russia & the CIS, the Middle East & Africa, Asia and North America.

Infracom Telecom brings today innovative solutions to the demanding telecommunications market. Its products employ the most advanced field-proven technologies achieving and exceeding the level of performance required by the modern applications for wireless access and backhaul. Infracom Telecom has been active in the South African market since 2010 and is the supplier of choice for one of the biggest ISPs in the country.

Earlier this year, the Infracom Telecom Group enhanced its presence in the African continent with the establishment of IntraTelecom SA in South Africa. The new subsidiary is expected to boost the business significantly in the region as well as in the sub-

Saharan African market targeting ISP's and mobile operators. Infracom Telecom is the market leader for the PMP-SON technology which has been selected by one of the biggest operators in the continent for the next phase of their enterprise and mobile backhauling requirements.

The Group's wireless products & solutions portfolio includes:

Point-to-MultiPoint (PtMP) Microwave Solutions

The leading PtMP technology of WiBAS™ delivers state-of-the-art IP connectivity in demanding backhaul of heterogeneous networks and in premium broadband and legacy access networks, also enabling a wide range of profitable business plans that will provide a key differentiator of operator success.

Small-cell Backhaul Units

StreetNode™ is a truly groundbreaking series of auto-aligning Ethernet radio products with unique automation and "zero-touch" capabilities. Its design meets the multiple challenges of small-cell backhaul, available for operation at microwave and millimeter wave bands, and ideally supports installations onto street-level structures.

Millimeter Wave Transmission Systems

UltraLink™ realises the profound advantages of E-Band transmission and fully satisfies the rigorous service delivery requirements of current and future mobile broadband applications.

The StreetNode™ V6o-PTP groundbreaking series of auto-aligning Ethernet V-Band radios meets the challenges of small-cell backhaul, eliminating the licensing burden in most countries and boosting the economic viability of the small-cell business model.

Software-defined Radios

With software-defined operation, the OSDR all-outdoor microwave platform meets the needs of 4G/LTE lastmile backhaul, carrier-grade broadband access, utilities or outside plants and rural communication networks, while demonstrating perfect synergy with OmniBAS™, WiBAS™ and StreetNode™.

Next-generation Microwave Products

The OmniBAS™ line of products ideally fits today's and tomorrow's bandwidth-intensive IP transmission applications, offering cost-effective high-capacity backhaul for mobile networks (3G+/LTE/LTE-A), while enabling an evolved and smooth migration of legacy networks to an all-IP architecture.

All-in-one Network Management System

The uni|MST™ Unified Management Suite makes networks more reliable and associated daily tasks easier, facilitating the deployment, supervision and management of networks, while simultaneously hiding the idiosyncrasies associated with the managed elements.

Antenna Systems

A complete range of microwave, millimeter wave, satellite and special-purpose antennas, designed and manufactured in-house, which support any demanding application requiring wireless links of the highest performance. ☎

Infracom Telecom is exhibiting at AfricaCom 2015 at stand C1 in between halls 2 and 3.

More information at www.infracom-telecom.com



Infracom Telecom brings innovative solutions to telecommunications market for smart cities (Photo: Shutterstock)

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Anritsu integrates channel fading simulation into 4G LTE-Advanced test equipment

ANRITSU CORPORATION HAS integrated channel fading simulation into its leading 4G LTE-Advanced Signalling Tester, the MD8430A. The new digital baseband fading options convert the MD8430A into a full-featured fading simulator supporting industry standard 3GPP-defined fading profiles.

The MD8430A fading options can be combined with the MD8430A, cutting the need for investment in additional hardware to perform signalling tests under realistic radio frequency (RF) conditions. This is the first LTE-Advanced signalling solution with built-in fading supporting the 4x4 MIMO downlink configuration.

The MD8430A is trusted by LTE and LTE-Advanced development engineers as the leading signalling tester for simulating LTE networks in the lab. With this release, the versatile MD8430A hardware platform continues to evolve, delivering Anritsu customers exceptional return on investment.

Tall structures, such as buildings and trees, reflect and scatter transmitted radio waves, meaning the receiver actually receives multiple original signals arriving from 'multipaths' with different strengths, times, and directions. A key feature of LTE-Advanced is the Multiple Input Multiple Output (MIMO) antenna system that improves device performance by exploiting multipaths. To test such MIMO devices thoroughly, multipath fading effects must be applied accurately to every antenna in a reproducible manner.

Using internal digital baseband processing, the MD8430A applies multipath effects during test execution, and the Rapid Test Designer (RTD) software



Anritsu's integrated fader for LTE-Advanced supports 4x4 MIMO and 8x2 MIMO fading tests

provides testers with an integrated environment for creating and running fading simulation tests. Support for LTE-Advanced features, such as Carrier Aggregation and MIMO, make the MD8430A the ideal solution in helping leading chipset designers build the next generation of high-performance mobile devices. In addition to testing devices over an RF connection, the MD8430A with fading option also supports a slow-clock digital interface to verify designs in a simulation environment before starting expensive ASIC production.

Newtec smashes efficiency record with MDM6000 satellite modem

SATELLITE COMMUNICATIONS EQUIPMENT specialist **Newtec**, working with satellite services provider **Intelsat**, has achieved a world-first for the amount of throughput in a single transponder. The demonstration was conducted at Intelsat's Fuchsstadt teleport in Germany. Intelsat's and Newtec's engineers used the Newtec MDM6000 satellite modem with Newtec's all digital built-in Bandwidth Cancellation (BWC) technology to set the record – which put 20Mbps into 2MHz.

This exciting result is the latest in a line of successes for Newtec, which has previously broken several speed barriers and has now demonstrated its industry-leading spectral efficiency. Maximizing bits per second per Hz has always been a priority for Newtec and is becoming increasingly important as satellite operators and service providers look to launch new services while also delivering higher performance and improved economics for their customers.

"This is an important achievement, as it shows our ability to fully utilise the capabilities of next generation satellites using Newtec technology that is available today. With a spectral efficiency of more than 10bps/Hz, one can, for example, handle a

bidirectional E1 in just 400kHz," said Dave Suffys, product manager for IP modems at Newtec. "What it demonstrates is our unparalleled efficiency at any rate, whether on a low-speed voice or data connection or for medium-speed backhaul links, all the way up to ultra high-speed trunks. A gain of at least 30 per cent in space capacity can be achieved for any bidirectional link."

"Intelsat is committed to delivering higher performance, improved economics and simpler access to our satellites. We will do this through supporting innovation in-orbit as well as on the ground," said Michael DeMarco, senior vice president, operations at Intelsat. "The demonstration with Newtec further advances our goals and it was great to see the efficiencies generated by Newtec's technology first-hand and importantly, the operational benefits that it will deliver to our customers. We will leverage increased efficiencies, such as this achievement by Newtec, to advance our entry into new applications, expanding the addressable market for our satellite-based solutions."

The Newtec MDM6000 Satellite Modem combines a number of innovative elements to improve efficiencies currently available on the market and lower the overall total cost of ownership (TCO). New modulation and Forward Error Correction (FEC) codes up to 256 APSK in the DVB-S2x standard, while embedded technologies – including 133Mbaud wideband support, Clean Channel Technology, intelligent Automatic Uplink Power Control (AUPC), FlexACM and Equalink

Increased throughput per transponder yields higher performance and significant operational and cost efficiencies for satellite operators and Their customers

3 – bring the satellite link to full efficiency.

Adding Newtec's built-in BWC (allows transmission of two carriers in an overlay fashion), as well as optional network optimization technologies, improves the performance even more for any point-to-point application.

Newtec's CEO Serge Van Herck said, "While Newtec has previously been associated with breaking speed records, this latest achievement shows that we are also committed to helping our customers minimize their OPEX by pushing the limits of spectral efficiency."

The MDM6000 will be among products exhibited by Newtec at IBC2015. Delegates will be able to view the MDM6000 R3.1, which incorporates Newtec's BWC technology with record-breaking spectral efficiencies. This makes the single modem perfectly suited for any application ranging from low speed E1 connections, over to medium speed backhaul circuits and up to the very high rate big trunks.

The test demonstration at Intelsat's teleport in Fuchsstadt, Germany, saw 20Mbps go into 2MHz

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07
REGIONAL PoPS

02
INTERNATIONAL PoPS

76
BASE STATIONS IN BENIN

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EMPLOYEES

202
CORPORATE CUSTOMERS

70
INTERNATIONAL INSTITUTIONS

+6000
ACTIVE SUBSCRIBERS

SUBSCRIBERS

- PROFESSIONAL SOLUTIONS
- SME AND CONSUMER
- DATA TRANSMISSION
- HOSTING AND COLOCATION



BICS offers dynamic IPoSAT solution for superior coverage

GLOBAL WHOLESALE CARRIER BICS recently launched RouteFlex, an automated business continuity and optimisation solution that has been developed to address the need for enhanced connectivity in Africa. The satellite solution enables operators to manage QoE and secure an optimal traffic balance.

RouteFlex provides an intelligent and cost-efficient IP over satellite (IPoSAT) back-up solution, supported by a software defined network (SDN), which enables operators to handle high volumes of IP data across satellite by applying end-to-end differential treatment to different types of aggregated data flows during peaks or outages. For example, when primary infrastructure - land or submarine cables - is compromised or faces an outage, BICS' satellite back-up solution prioritises high value traffic, increasing bandwidth efficiency by blocking less critical, high bandwidth services such as online gaming and video streaming.

In non-critical situations, RouteFlex has the ability to enhance coverage through dynamic

switching between fibre and satellite facilities. This ensures the provision of high quality services when the network requires balancing. Optimisation can also be performed across whole regions, with large operator groups able to move capacity between its neighbouring markets.

As a value added service, RouteFlex secures service continuity for telecom operators while simultaneously reducing costs. The service runs on top of existing infrastructure, reduces planning efforts, operational and maintenance costs, and needs no major additional investments.

The development of RouteFlex follows the launch of BICS' SatFlex and MultiFlex services last year, which guarantee end-to-end link quality and efficiency using BICS' Europe-based state-of-the-art teleport satellite and fibre infrastructure. Capacity is available from both stable and inclined orbit satellites, offering data speeds of hundreds of Mbps in each direction.

Flexible satellite services perfectly complement BICS' range of capacity services for the region

including land fibre and submarine facilities. By offering the full connectivity suite, BICS can provide faster issue resolution during outages for all mission critical international telecommunications services.

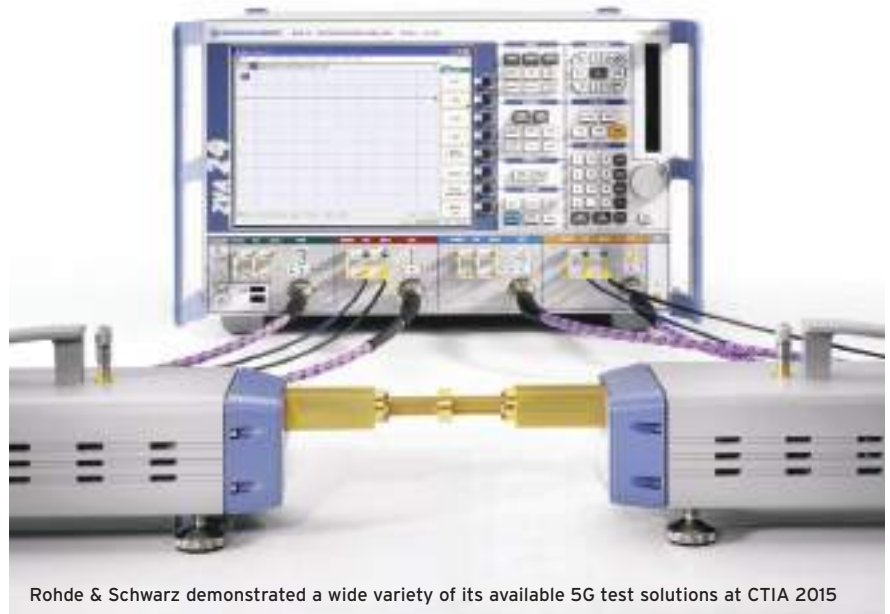
"RouteFlex will revolutionise the way operators are able to provide services to customers when faced with damaged land or submarine cables," said Eric Loos, senior product manager capacity and IP at BICS. "Previously, the provision of satellite back-up in these situations was limited in its scope and expensive to administer, however, by offering the ability to instantly prioritise traffic, operators are able to ensure continuity of service while keeping costs to a minimum."

Clémentine Fournier, regional vice president Africa at BICS, said, "BICS is committed to developing innovative solutions to nourish the growing demand for data connectivity in Africa. The expansion of the BICS satellite portfolio will further enhance operators' abilities to deliver outstanding service levels for end users, further boosting the growth of this exciting market."

Rohde & Schwarz showcases 5G test solutions at CTIA

MOBILE WIRELESS TEST specialists Rohde & Schwarz demonstrated several key test systems for the development and test of 5G components and systems at CTIA Super Mobility 2015. The next generation of mobile communications will push current design limits with higher peak data rates of 10Gbps, massive IoT device connectivity, higher network capacity (10,000x current network), reduced latency ($\lt; 1\text{ms}$) and overall improved energy efficiency.

The Rohde & Schwarz electronics group offers innovative solutions in the following business fields: test and measurement, broadcast and media, secure



Rohde & Schwarz demonstrated a wide variety of its available 5G test solutions at CTIA 2015

5G is the next-generation mobile communications system expected to be commercially introduced in 2020. With ultra wide bandwidths and higher frequencies, the development of 5G chipsets, components and devices will require a unique mix of test and measurement equipment unlike 3G and 4G LTE

communications, cybersecurity, radiomonitoring and radiolocation. Founded more than 80 years ago, this independent company has an extensive sales and service network and is present in more than 70 countries.

At CTIA Super Mobility 2015, Rohde & Schwarz demonstrated a wide variety of its available 5G test solutions at the event, including ultra-wideband signal analysis for 5G component and device development using the R&S FSW Signal and Spectrum Analyzer and R&S RTO Digital Oscilloscope. When used

together, the R&S SMW Vector Signal Generator and the R&S FSW Signal and Spectrum Analyzer enable researchers to design and evaluate the many different candidates for 5G waveforms. For millimeter wave component test, the R&S ZVA Vector Network Analyzer seamlessly covers the frequency ranges required for 5G. Based on the industry leading R&S CMW500 Wideband Radio Communication Tester, the R&S CMW-PQA test system is used for testing Massive Machine Type Communications, which is a key development area in 5G.

Windows 10 et des nouvelles applications universelles

WINDOWS 10 EST disponible en mise à jour gratuite pour les utilisateurs de Windows 7 et Windows 8.1. Avec des innovations telles que Cortana, Microsoft Edge ou Windows Hello, Windows 10 offre aux utilisateurs une expérience sur l'ensemble des écrans, plus simple, personnelle et sécurisée.

Windows 10 offrira une expérience unique du plus petit support avec l'Internet des objets, aux plus grands, qu'il s'agisse de Smartphones, tablettes, PC, Surface Hub ou HoloLens. Le nouveau Windows Store et le kit de développement pour Windows sont également disponibles dès aujourd'hui, ouvrant la voie à la création d'applications universelles et innovantes.

Windows 10 sera proposé en mise à jour gratuite pour les utilisateurs de PC et tablettes disposant des dernières versions officielles de Windows 7 et 8.1.

La mise à jour vers Windows 10 se fera simplement, les utilisateurs ayant réservé leur copie de Windows 10 seront notifiés à partir d'aujourd'hui par vagues pour mettre à jour leur appareil.

Windows 10, c'est la rencontre entre des fonctionnalités familières (le retour du menu Démarrer par ex.) et des innovations telles que

Cortana, une assistante digitale personnelle, qui vous conseille, vous permet de trouver les bonnes informations au bon moment et vous fait des recommandations basées sur vos préférences



Microsoft Edge, le nouveau navigateur de Microsoft, qui permet de rechercher, de lire, d'annoter et de partager du contenu web rapidement et simplement

Windows Hello qui vous reconnaît ouvre votre session grâce à l'authentification biométrique de votre visage, iris ou empreinte digitale : vous êtes le mot de passe

L'application Xbox qui marque l'arrivée de l'expérience Xbox sur Windows 10

Le mode Continuum pour les 2-en-1 qui permet de passer facilement d'un mode PC (clavier et souris) à un mode tablette

Les fonctionnalités Multitâches et l'affichage des tâches qui garantissent plus d'efficacité

Les applications nativement intégrées telles que Photos, Maps ou encore Groove, la nouvelle application musique de Microsoft

Les nouvelles applications Office Mobile pour Windows 10 optimisées pour le tactile font leur arrivée dès aujourd'hui sur le Windows Store³. Windows 10 accueillera par ailleurs prochainement Office 2016 optimisé pour les grands écrans, les ordinateurs portables et les 2-en-1 tels que Surface. ©



Intel dévoile de nouvelles plateformes PC

LE PC RESTE la première plateforme de jeu en termes de volume, de recettes et de perspectives de croissance. Intel prend donc ce segment très au sérieux. Un grand salon comme le Gamescom est l'endroit idéal pour annoncer les processeurs de bureau à coefficient débloqué Intel® Core i7-6700K et Intel® Core i5-6600K ainsi que le chipset Intel® Z170. Ces produits posent les bases de la famille de processeurs Intel® Core 6ème génération et des chipsets Intel® 100 Series, qui seront disponibles plus tard cette année.

Visant principalement le public des joueurs et overclockeurs, la présentation de ces nouveaux produits est accompagnée d'un concours de modding, qui va permettre de montrer toute la créativité dont les utilisateurs savent faire preuve avec leurs plateformes.

Avec le support de la mémoire DDR4 pour la toute première fois sur une plateforme grand public, le retour d'une plage de réglage de la fréquence plus étendue pour un réglage précis de la vitesse du CPU par les amateurs d'overclocking, ainsi que 4 cœurs fonctionnant à 4,0 GHz, ce salon offre de nombreuses raisons de s'enthousiasmer.

Les partenaires d'Intel se mettent aussi au



diapason en présentant de nouveaux systèmes basés sur la plateforme : Asrock, Asus, EVGA, Gigabyte et MSI avec des cartes-mères aux nombreuses fonctionnalités, spécialement conçues pour les passionnés, et des systèmes complets incroyables de constructeurs comme Alienware, Acer, ALTERNATE, Asus, HP, SCAN, Tones, et bien d'autres encore.

D'autres technologies Intel vont également être présentées, comme la nouvelle technologie Thunderbolt 3, ou les tous derniers SSD Intel® qui permettent de renforcer encore un peu plus la performance. Intel a ainsi dévoilé un modèle 800 Go de sa gamme Intel® SSD 750 à l'occasion du Gamescom. Et n'oublions pas la toute récente sortie de

Microsoft Windows* 10, dont la puissance et les fonctionnalités avec notamment l'arrivée de l'API Microsoft DirectX* 12 et d'applications Xbox* sur PC permettent de faire réellement chanter votre système.

Intel a en outre annoncé la sortie d'un processeur Intel Core « K » 6ème génération à coefficient débloqué pour les notebooks, plus tard dans l'année. Il s'agira du premier produit « K » débloqué pour les systèmes mobiles. Nous vous fournirons bientôt plus d'informations sur ces produits.

Les processeurs Intel Core i7-6700K et Intel Core i5-6600K sont disponibles dès maintenant via les canaux commerciaux habituels, à des prix de 350 \$ et 243 \$ respectivement.

ADVERTISERS INDEX

Company	page
ABS.....	2
ACE Cable Consortium	15
Amos Spacecom	9
Azercosmos	29
Comviva Technologies Ltd.	21
F G Wilson Engineering Ltd	7
Gazprom Space Systems, JSC	11
Intelsat	27
Intracom Middle East FZ-LLC.....	37
Isocel Telecom	33
Kirloskar Oil Engines Ltd.	38
MEASAT Satellite Systems Sdn Bhd.....	31
PCCW Global Ltd	5
Singapore Telecommunications Limited	25
Telecom Italia Sparkle S.p.A.	Cover Wrap
WIOCC.....	13

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