Communications
Africa
Afrique

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The business of mobile broadband
How advanced networks can change industries

Data
Wireless backhaul for data-driven markets

Billing
From measurement to enterprise integration

Satellite
Les applications vidéo et les services de données

Allan Kamau at Portland Communications, speaks on social media for businesses

FEATURES: ● Communications ● Radio ● Broadcast
REGULAR REPORTS: ● Agenda ● Solutions

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A note from the Editor

THIS ISSUE OF Communications Africa/Afrique examines modes of operation to serve increasingly digital African territories. It offers analyses of satellite technologies and services available to businesses and communities, and to network developments such as backhaul solutions and billing mediation services, and to customer-facing operations with financial technologies and social media platforms. With respect to broadcasting, this issue addressing coding for televisual transmissions and advances in radio services. It also previews IBC, a key European broadcasting event for the global promotion of new equipment.

MAIN COVER IMAGE: Fotolia/AfricanWildcat
COVER INSET: Portland Communications

Une note du rédacteur

DANS CE NUMÉRO de Communications Africa/Afrique, il y a des articles sur la connexion par satellite et les entreprises numériques. Il y a aussi un rapport sur le sujet de la tranmission et des cultures francophones.

Technavio projects data centre air conditioning sales

ACCORDING TO MARKET research report by **Technavio**, the global data centre precision air conditioning market is expected to record a compound annual growth rate (CAGR) of over 10 per cent until 2020; "Owing to the increased adoption of advanced technologies for operational needs, enterprises are prompted to expand their data centre footprint worldwide," said Rakesh Panda, one of Technavio's lead industry analysts for automotive electronics research.

Broadband Commission calls to develop ICTs for SDGs

THE **BROADBAND COMMISSION for Sustainable Development** has urged policymakers, the private sector and other partners to make deployment of broadband infrastructure a top priority in strategies to accelerate global development and progress towards the SDGs; Houlin Zhao, **ITU** Secretary-General, said, "Let us all grasp this vital opportunity to strive for a world where every citizen enjoys the opportunities and benefits of universal, affordable and inclusive access to ICTs."

Houlin Zhao, Secretary-General, ITU

Research reveals SES reach in Nigerian TV

SATELLITE OPERATOR **SES** indicates, in its first Satellite Monitor study on the Nigerian market, which provides insight on the important role SES plays in the growth of the satellite television reach in the country, that it reaches 2.81mn TV homes across the country, of which 1.69mn are reached directly by SES satellites and 1.12mn through cable TV fed indirectly by the SES fleet; Eric Lecocq, General Manager of North, West and Central Africa at SES, said, "We aim to connect the entire Nigerian population with our satellites, by developing the broadcasting landscape in partnership with our local partners and in close coordination with broadcasters."

SES-5 is one of the satellites serving the satellite TV market across Africa (Photo: ILS International Launch Services, Inc)

ALTV brings original content to underserved areas

A NEW FREE streaming service aimed at delivering original content to underserved areas, ALTV.com has been launched in the Middle East and North Africa, with expansions soon planned for South America and Sub-Saharan Africa, by telecoms group **Granahan McCourt Capital (GMC);** the launch was attended and promoted by Prince Bandar Al Saud, David McCourt (chairman and CEO of Granahan McCourt), Omar Talib and Hollywood actor Omar Miller.

Prince Bandar Al Saud, David McCourt chairman and CEO of Granahan McCourt, Omar Talib and Hollywood actor Omar Miller at the launch of ALTV

Italtel joins HPE OpenNFV Partner Programme

A SPECIALIST IN network functions virtualisation (NFV), software defined networking (SDN) and all-IP communications, Italtel has joined the **Hewlett Packard Enterprise (HPE)** OpenNFV Partner Programme as an official application partner to help communications service providers (CSPs) launch new services faster, easier and more cost-effectively through the virtualisation of their network functions; Federico Descalzo, VP chief marketing and technology officer at Italtel, said, "Italtel will take advantage of this partnership programme in order to provide NFV solutions that can be quickly and easily delivered in telcos' network, reaching significant objectives in terms of operational efficiency and business agility."

Dizengoff Ghana selects Gilat satellite broadband

SPACE-BASED TECHNOLOGY COMPANY **Gilat Satellite Networks** has been selected by **Dizengoff Ghana Limited** to implement a turnkey solution for the delivery of broadband and cellular services via satellite throughout rural Ghana; Gilat will deploy its SkyEdge II-c hub, which is capable of supporting multiple applications, while its Gemini VSATs will deliver broadband services to schools, and its Capricorn VSATs, in conjunction with its solar-powered CellEdge small cells, will extend cellular service for several mobile network operators (MNOs) in Ghana.

Vantage Mezzanine Fund III invests in Vumatel

MEZZANINE FUND MANAGER **Vantage Capital** has disbursed the second and final tranche of a R250mn (US$16.6mn) expansion capital facility to South African fibre network specialist **Vumatel** for the on-going expansion of Vumatel's fibre-to-the-home (FTTH) network in Johannesburg and Cape Town suburbs; Yaw Keteku, associate partner at Vantage Capital, said, "Vumatel is laying the foundation for South Africans to participate in a world that is increasingly data-driven."

ITU focus group reports on digital financial services

THE **INTERNATIONAL TELECOMMUNICATION Union (ITU)** Focus Group on Digital Financial Services has now published six reports as it seeks to develop an international framework of good practice guidelines for regulators, operators and providers in the telecom and financial services sectors; ITU Standardisation Bureau director Chaesub Lee commented, "Both telecom and financial services regulators have a crucial role to play in rolling out digital financial services that are accessible to everyone around the world."

Chaesub Lee, director, ITU Standardisation Bureau

130,000
Reasons to Consider
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At FG Wilson, we've been building and installing generator sets for half a century. And the most important things we've learned in that time are that every customer has their own individual needs and that working through a project means not just building the metal but also building relationships and trust.

We looked back as far as our computers would allow us and found that since 1990 over 130,000 FG Wilson generator sets have been hard at work in Africa, altogether with a total electrical capacity of 12GW, double that of the mains electricity supply in Nigeria.

With a number like that, we take no risks with quality or performance. When you buy one of our generator sets you can be sure of two things: that it has been rigorously tested before it leaves our factory and that you will have a lifetime of support, at the kind of level you would expect from the automotive industry.

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Orange conclut l'acquisition d'Airtel au Burkina Faso

L'UN DES PRINCIPAUX opérateurs de télécommunications dans le monde, **Orange** a réalisé, conjointement avec sa filiale **Orange Côte d'Ivoire,** l'acquisition de 100% de l'opérateur mobile **Airtel** au Burkina Faso auprès de **Bharti Airtel International;** a propos de cette acquisition, Bruno Mettling, Directeur Général Adjoint du groupe Orange et Président-Directeur général d'Orange MEA (Afrique et Moyen-Orient) a déclaré : « Cette nouvelle acquisition vient renforcer les positions stratégiques du Groupe sur le continent africain.

Camusat connecte un village à Madagascar

UNE SOCIÉTÉ SPÉCIALISÉE dans l'infrastructure de télécommunications, **Camusat** a dévoilé les résultats du premier site mis en œuvre au Madagascar utilisant sa solution rurale; installé et mis en service en 5 jours, ce site de télécommunications construit sans béton et alimenté à 100% par l'énergie solaire, permet à un opérateur de téléphonie mobile, clients de Camusat, de relier aux réseaux mobiles un village non connecté de 5000 habitants.

Le lancement d'ALTV apporte du contenu original

LE GROUPE DES télécoms **Granahan McCourt Capital (GMC)** a lancé ALTV.com, un nouveau service de streaming gratuit qui apportera un contenu vidéo plus captivant et plus pertinent aux régions mal desservies; ALTV fait maintenant ses débuts au Moyen-Orient et en Afrique du Nord, et prévoit des lancements prochains en Amérique du Sud et en Afrique subsaharienne.

David McCourt (le président du conseil et PDG de la société) et l'acteur Omar Miller

StarTimes renforce ses ressources satellitaires

OPÉRATEUR DE TÉLÉVISION numérique, **StarTimes** se prépare à étendre la diffusion de ce bouquet TNT à la RD Congo et à la Zambie, dans le cadre dans plan pour accélérer le déploiement de la télévision numérique en Afrique, avec **Eutelsat;** Pang Xinxing, Président de StarTimes Group, a déclaré : « Notre développement se poursuivra en collaboration avec Eutelsat afin que nos clients africains bénéficient du meilleur service de télévision numérique. »

GlobalMed établit une nouvelle base d'opérations

COMME INDICE DE l'importance croissante du marché africain pour l'économie mondiale, **GlobalMed** - spécialisée dans les systèmes de prestation des solutions de télémédecine - a choisi le groupe **Mbaoua** en Côte d'Ivoire pour superviser les opportunités et les déploiements en Afrique; « Ceci constitue un énorme avantage concurrentiel pour GlobalMed et ceci est nécessaire pour le succès dans toutes les régions de l'Afrique », a déclaré Yaya Mbaoua, PDG de la société.

InfraMed investit dans « Broadband for Africa »

EUTELSAT COMMUNICATIONS ET **InfraMed** ont conclu un accord aux termes duquel InfraMed devient actionnaire à hauteur d'environ 21% de la société **Broadband for Africa,** créée par Eutelsat; Laurent Grimaldi, Directeur général de Broadband for Africa, a apporté son éclairage : « Grâce aux technologies satellitaires de pointe sur lesquelles nous allons nous appuyer, Broadband for Africa sera en mesure d'apporter des solutions de connectivité performantes aux opérateurs de télécommunications, aux fournisseurs d'accès à Internet et aux agences gouvernementales, avec qui nous partageons la volonté de favoriser l'inclusion numérique en Afrique. »

De la connexion des personnes non connectées

UNE ÉTUDE INDÉPENDANTE commandée par la **Wireless Broadband Alliance** pour marquer la Journée mondiale du Wifi révèle l'étendue du fossé numérique qui existe au niveau mondial - plus particulièrement dans certaines des plus grandes villes au monde; « Nous demandons donc aux villes, gouvernements, opérateurs et sociétés de technologie, dont Facebook, Google et Microsoft, de se rassembler aujourd'hui pour contribuer à la fourniture d'une connectivité abordable et durable pour chacun et en tout lieu, » a déclaré Shrikant Shenwai, PDG de la Wireless Broadband Alliance.

Autours des transferts d'argent vers l'Afrique

ORANGE A LANCE Orange Money en France métropolitaine pour les abonnés mobiles Orange; ce service leur permet d'effectuer des transferts d'argent via leur mobile vers d'autres clients Orange Money situés dans un premier temps en Côte d'Ivoire, au Mali et au Sénégal.

Air-Lynx expose au CCW 2016

AIR-LYNX A PRÉSENTÉ au salon CCW 2016 à Amsterdam; il a été l'occasion pour la société de présenter en avant-première mondiale les nouvelles solutions proposées dont le support de la diffusion en mode eMBMS qui optimise l'usage de la bande radio pour les communications de groupe, une passerelle radio d'interfonctionnement LTE-TETRA pour une transition facile entre les deux technologies et des solutions de couverture longue portée adaptée aux besoins des professionnels.

SES atteint 2,81 millions de foyers TV au Nigéria

OPÉRATEUR MONDIAL DE satellites, **SES SA** a annoncé les résultats de sa première étude « Satellite Monitor » sur le marché nigérian, qui souligne que SES atteint 2,81 millions de foyers TV sur l'ensemble du pays, avec une couverture directe de 1,69 million de foyers TV par satellite; Eric Lecocq, General Manager of North, West and Central Africa chez SES, a déclaré : « Nous voulons connecter toute la population nigériane avec nos satellites à travers le développement du paysage de la télédiffusion, en collaborant avec nos partenaires locaux et en étroite coordination avec les télédiffuseurs. »

SES-5 travaille pour l'Afrique (Photo: ILS International Launch Services, Inc)

Events/Événements 2016

SEPTEMBER/SEPTEMBRE

8-12	**IBC**	Amsterdam, The Netherlands	www.ibc.org
13-16	**VSAT Global**	London, UK	tmt.knect365.com
20	**TMT Finance Africa**	Lagos, Nigeria	www.tmtfinance.com
20-21	**Nigeria Com**	Lagos, Nigeria	tmt.knect365.com
21-22	**Carriers World**	London, UK	www.terrapinn.com
27-28	**Managed Services World Congress**	London, UK	tmt.knect365.com

OCTOBER/OCTOBRE

5-6	**AITEC Banking & Mobile Money**	Lagos, Nigeria	aitecafrica.com
18-19	**Broadband World Forum**	London, UK	tmt.knect365.com
19-20	**Apps World**	London, UK	tmt.knect365.com
31 Oct-1 Nov	**TV Connect MENA**	Dubai, UAE	tmt.knect365.com

NOVEMBER/NOVEMBRE

1-2	**MVNOs Networking Congress**	London, UK	tmt.knect365.com
2	**DevOps World**	London, UK	tmt.knect365.com
2-4	**DISCOP**	Johannesburg, South Africa	discopafrica.com
7-8	**Critical Communications MENA**	Dubai, UAE	tmt.knect365.com
9-10	**WorldDAB General Assembly**	Vienna, Austria	www.worlddab.org
14-18	**Africa Com**	Cape Town, South Africa	tmt.knect365.com
15-17	**LTE Africa**	Cape Town, South Africa	tmt.knect365.com
15-17	**TV Connect Africa**	Cape Town, South Africa	tmt.knect365.com

Executives entertain the future of finance and technology at pan-African TMT event

A FINANCE AND investment focused executive-only event, TMT Finance Africa 2016 brings together international investors, bankers and advisers, private equity professionals, governmental representatives and regulators. Held in Lagos, Nigeria, on 20 September, the event bears a comprehensive pan-African focus.

TMT Finance Africa in Lagos features more than 50 speakers addressing 200 delegates. There will be six leadership panel debates and four keynote presentations. The

Issam Darwish,
executive vice chairman and CEO, IHS

event is also structured around 10 peer-to-peer round table sessions. All are supported by five hours of networking breaks.

The event is focused on key themes affecting strategic decision-making in African finance and technology today. Delegates will discuss: telecoms leadership; infrastructure investment; mergers and acquisitions; data centres and the cloud; mobile banking; private equity; digital content strategies; and regulation and policy.

Numerous leading industry figures are set to speak at TMT Finance Africa, including:

Issam Darwish, CEO, **IHS Towers**

Segun Ogunsanya, CEO, **Airtel Nigeria**

Karl Olutokun Toriola, VP, West and Central Africa, **MTN Group**

Funke Opeke, founder & CEO, **MainOne**

Andile Ngcaba, founding partner & chairman, **Convergence Partners Investments**

Nina Triantis, global head of TMT, **Standard Bank**

Ifeanyi Amah, group executive director, **ipNX Nigeria Limited**

Aniko Szigetvari, global head of TMT, **IFC**

Cordel Robbin-Coker, vice president, The Carlyle Group

Ted Manvitz, chief investment officer, **IHS Towers**

Iyabo Soji-Okusanya, group head of telecoms, **Access Bank**

Jerome Claraz, director, **JumiaPay Africa Internet Group**

Tunde Kehinde, co-founder & co-MD, **ACE**

Laurence Hainault, head of EMEA telecoms, **Credit Suisse**

Jason Njoku, founder and CEO, **Iroko Partners**

Shola Akinlade, co-founder/CEO, **Paystack**

Chioma Viola Opara, regional sales director, **Flexenclosure**

Dipo Ogunbiyi, head, equity capital markets, **FBN Capital**

Mohamed Darwish, interim CEO, **IHS Nigeria**

William Saad, chief operating officer, **IHS Towers**

Eghosa Omoigui, founder/managing general partner, **EchoVC Partners**

Eyitayo Onadipe, COO, **Afro Technologies**

Stéphane de Vaucelles, managing partner, **Cadmos**

German Cufre, team leader Africa TMT, **IFC**

Olufunso Fasetire, investment officer, **IFC**

Ayodeji Aladejebi, CEO, **Dabar Objects Solutions**

Elizabeth Rossiello, CEO and co-founder, **BitPesa**

DTH market grows

RESEARCH AND MARKETS has published 'Worldwide DTH Market End 2015', a report tracking pay TV subscribers on a quarterly basis based on technology type - cable, digital terrestrial television (DTT), internet protocol television (IPTV) and direct-to-home (DTH) TV. The report analyses DTH pay TV subscribers globally and the share of telecom operators in the DTH space.

The distribution of DTH subscribers is growing in all the regions except North America where DTH subs has gone down. Most of the growth for DTH subs are coming from Latin America where subscribers have grown from 14mn in 2010 to 35mn in 2015 at a CAGR of 20 per cent.

Next to Latin America, the next fastest-growing region is Asia-Pacific (APAC), at a CAGR of 17 per cent followed by the Middle East and Africa at a CAGR of 15 per cent. Europe has grown at a CAGR of five per cent for 2010-15.

GSMA calls for dialogue on Egyptian 4G spectrum

THE **GSMA,** WHICH represents the interests of mobile operators worldwide, has called for the Egyptian authorities and the country's mobile industry to work closely together to set a roadmap for the successful introduction of 4G services. Egypt has been making some advances towards establishing licensing spectrum to support 4G, although it is not yet clear if sufficient spectrum will be made available on terms that will encourage rapid and large-scale investments in 4G networks and services.

"There are some critical success factors that should to be clarified before moving forward with 4G licensing in Egypt," said John Giusti, GSMA chief regulatory officer. "The GSMA is concerned about sufficient spectrum being made available at fair, market-reflective prices to support full-fledged 4G rollout. A clear spectrum roadmap is necessary to allow operators to understand how and when sufficient spectrum will be made available. We believe that further dialogue between government and industry ahead of the proposed licensing process could provide clarity on a plan to bring world-class 4G mobile broadband to consumers and businesses across Egypt."

Based on the GSMA's international experience, the total amount of spectrum assigned to each operator for 4G needs to be in the range of 2x30MHz to 2x60MHz, across a range of coverage and capacity bands, with a minimum contiguous bandwidth of 2x10MHz in each band (to enable efficient network economics). It is also essential that cost of spectrum access enables the delivery of the long-term
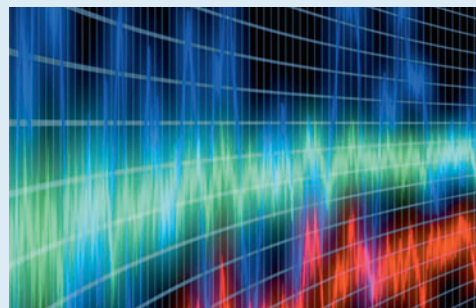
There are some critical success factors to be clarified before moving forward with 4G licensing in Egypt

social and economic benefits of mobile broadband and takes into account the investment necessary to provide robust networks.

"To ensure the lowest possible cost and best possible experience for consumers, national 4G services must be able to scale rapidly," said Giusti. "This requires that sufficient spectrum be made available now, and that plans for future spectrum releases are clarified. Having a spectrum roadmap is critical for business and investment planning."

A recent Memorandum of Understanding between the GSMA, the **Government of Egypt** and the **National Telecommunications Regulatory Authority (NTRA)** was agreed to promote a regulatory environment in Egypt that stimulates long-term investment in mobile services.

Tigo Insurance reaches new users

TELECOMMUNICATIONS AND MEDIA company Millicom has confirmed that its Tigo brand has reached approximately 2.7mn active users across Africa, establishing its position as a regional leader in mobile microinsurance. Tigo Insurance, delivered in partnership with mobile microinsurance provider BIMA, has positively disrupted the traditional insurance industry in Africa, driving financial inclusion and bringing mobile microinsurance to customers who otherwise would not be able to afford it - 99 per cent of Tigo's Insurance customers in Africa live on less than US$10 per day.

"Mobile insurance is a critical component of our strategy to shape the future of Mobile Financial Services in Africa," said Cynthia Gordon, chief executive officer, Africa division, at Millicom. "Reaching the milestone of 2.7mn active users is a testament to our dedication in bringing The Digital Lifestyle to our customers and demonstrates how Tigo has become a force for financial inclusion in Africa."

Mobile-delivered insurance is one of Tigo's strongest performing mobile financial service (MFS) products. In Africa, the company now has over 30mn active MFS customers. All of these customers are on paid products, demonstrating that operators can create a sustainable MFS business that services the low-income segment.
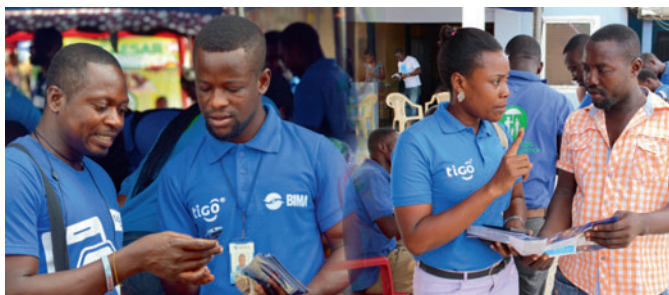
The growth of the Tigo Insurance initiative indicates that there is huge potential for MFS in Africa beyond mobile money platforms

AU launches Kenyan internet exchange PoP

THE **AFRICAN UNION Commission (AUC),** through its Infrastructure and Energy Department, and in collaboration with **Kenya's Ministry of Information, Communications & Technology,** has launched the Kenya Internet Exchange Point of Presence in Mombasa. Through the African Internet Exchange System (AXIS) project of the African Union Commission, Member States with internet exchange points have increased from eighteen to thirty two. The Commission has further provided grants to six internet exchange points to be supported to become regional internet exchange points. The following four areas are to be supported: capacity building; the **Kenya Internet Exchange Point (KIXP)** site in Mombasa; the **GSM Regional Exchange (GRX);** and the promotion of KIXP as a regional internet exchange.

"In the context of celebrating 50 years, the AU Heads of State and Government agreed to develop a Continental Agenda 2063. The overall objective of Agenda 2063 is to chart Africa's development trajectory over the next 50 years. One of the envisaged activities is putting in place an intra-African broad band terrestrial infrastructure," said H E Dr Elham M A Ibrahim, AU Commissioner for Infrastructure and Energy.

"As access to information and knowledge is a prerequisite to achieving development goals set by Africa, I call upon the public sector, private sector and civil society to partner and find effective and innovative ways to put the potential of ICT at the service of African citizens."

Africa is currently paying overseas carriers to exchange intra-continental traffic on our behalf. This is both costly as well as an inefficient way of handling exchange of local Internet traffic.

"We are keen on enhancing local and regional connectivity to make Africa technologically competitive," said Victor Kyalo, Principal Secretary at the Ministry of Information, Communications and Technology of Kenya.

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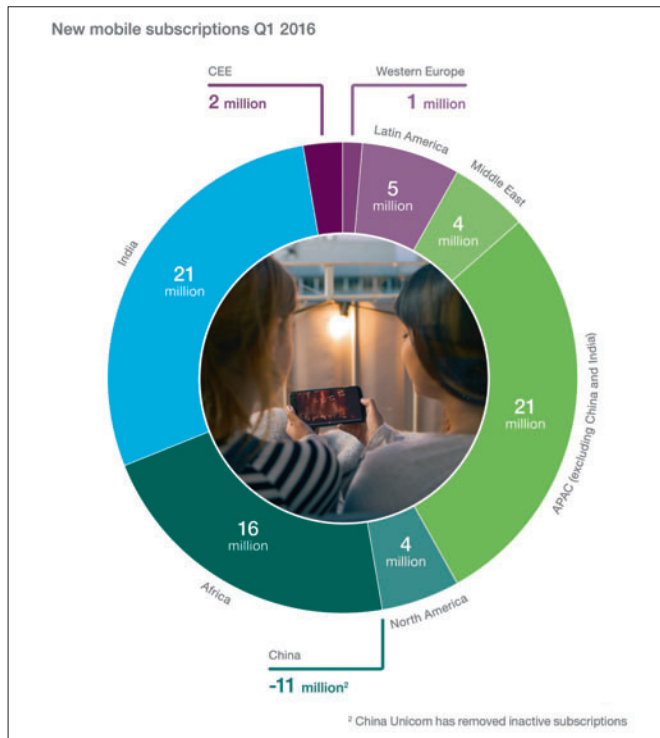
LIQUID TELECOM

Building Africa's digital future

Billions of connected devices projected over five years

THE LATEST EDITION of the **Ericsson** Mobility Report indicates that the Internet of Things (IoT) is set to overtake mobile phones as the largest category of connected device by 2018.

Between 2015 and 2021, the number of IoT connected devices is expected to grow 23 per cent annually, of which cellular IoT is forecast to have the highest growth rate. Of the 28bn devices that will be connected by 2021, near to 16bn will be IoT devices.

Rima Qureshi, senior vice president & chief strategy officer at Ericsson, said, "IoT is now accelerating as device costs fall and innovative applications emerge. From 2020, commercial deployment of 5G networks will provide additional capabilities that are critical for IoT, such as network slicing and the capacity to connect exponentially more devices than is possible today."

The number of mobile subscriptions exceeds the

New mobile subscriptions Q1 2016

Region	New subscriptions
CEE	2 million
Western Europe	1 million
Latin America	5 million
Middle East	4 million
India	21 million
APAC (excluding China and India)	21 million
Africa	16 million
North America	4 million
China	-11 million[2]

[2] China Unicom has removed inactive subscriptions

population in many countries. This is largely due to inactive subscriptions, multiple device ownership or optimisation of subscriptions for different types of calls. This means the number of subscribers is lower than the number of subscriptions. Today there are around five billion subscribers compared to 7.4bn subscriptions.

Smartphone subscriptions continue to increase and are forecast to surpass those for basic phones in Q3 2016. By 2021, smartphone subscriptions will almost double from 3.4bn to 6.3bn.

The report reveals that global mobile data traffic grew by 60 per cent between Q1 2015 and Q1 2016, due to rising numbers of smartphone subscriptions and increasing data consumption per subscriber. It also indicates that, by the end of 2021, around 90 per cent of mobile data traffic will be from smartphones. Mobile broadband subscriptions will grow four-fold in the Middle East and Africa between 2015 and 2021.

MTN Nigeria commits to more broadband

THE **NIGERIAN COMMUNICATIONS Commission (NCC)** has confirmed **MTN** as winner of its latest auction for a ten-year frequency spectrum licence for the 2.6GHz band, which guarantees superior performance for wireless networks, especially 4G LTE services. The NCC had earlier confirmed that MTN's bid was in full compliance with provisions of the Information Memorandum (IM) for the exercise.

Although Nigeria is one of 28 African countries that currently offer 4G/LTE services, the rate of penetration is restricted to a few major cities. As such, MTN's success in this auction is a big boost to its plan to deliver global mobile broadband and LTE 4G services to over 60mn customers in Nigeria.

MTN also plans to use FDD networks in addition to its existing WIMAX over TDD networks, as this provides for greater consistency with existing 2G and 3G deployments. MTN Nigeria CEO Ferdi Moolman said, "After complying with all the requirements for the 2.6GHz auction and making the licence payment of N18.96bn (US$67.05mn) to the NCC, MTN has been issued a letter of award. With the 2.6 GHz band, we expect to roll out and provide the full range of LTE services to Nigerians, empowering Nigeria with the latest mobile broadband technology."

The award of the spectrum by the NCC was further to an open, transparent and competitive process in which all operators - local and foreign; enjoyed equal and unfettered rights of participation in line with the NCC's desire for transparency and ensuring a level playing field for all. The NCC has described this spectrum as a significant trigger for a broadband revolution that will unlock benefits such as greater coverage, access, affordability and innovation, with the customer at the centre of these gains.

Mr Moolman also said, "This license acquisition further demonstrates MTN's abiding faith in the future of Nigeria and the resilience of the Nigerian economy. MTN continues to believe in Nigeria and we have expressed this belief in the level of our investment, which currently stands at approximately US$15bn and counting. We strongly believe that there is need for significant levels of investment in broadband infrastructure and services."

Millicom opens data centres in Chad and Senegal

TELECOM AND MEDIA company **Millicom** has established two new data centres in Chad and Senegal, reinforcing its commitment to its business customers and anticipating rising regional demand for data centre services.

The facility in N'Djamena, Chad, is a 126-rack capacity data centre designed to service all of Tigo Chad's hosting requirements, with a total power load of close to 1 MW, with the possibility of expanding to double its initial capacity. The facility boasts the highest security procedures through biometric access and a fully automated intelligent system capable of automatically warning staff of any imminent issues.

Cynthia Gordon, chief executive officer, Africa Division, at Millicom, said, "Our new data centre represents a significant investment for Tigo Chad which will continue to improve B2B customer experience and ensure operational stability. It significantly expands our data capacity, allowing us to offer our customers in Chad new and exciting business, internet and mobile services."

Diego Camberos, Tigo Senegal CEO, Senegal Prime Minister HE Mahammed Boun Abdallah Dionne, Cynthia Gordon, Africa Division CEO at Millicom, and Pape Ndiaye Ka, Millicom's head of regulation and governmental relations

In recognition of the growing revenue opportunity in Senegal, Millicom has also confirmed plans to develop a similar facility there. Following a recent meeting with the Senegalese Prime Minister, HE Mr Mahammed Boun Abdallah Dionne, the construction of the new data centre will take place in Diamniadio, in the Dakar region of Senegal.

By offering business customers in Senegal a full range of secure hosting solutions, Millicom is also supporting the government led Plan Senegal Emergent (PSE), designed to position the country as a leader in its subregion.

GSMA measures mobile internet

A NEW ONLINE tool has been launched by the **GSMA** to measure the ability of countries to connect offline citizens to the mobile internet. The GSMA Mobile Connectivity Index measures each country on the four key enablers for driving mobile internet adoption: infrastructure; affordability; consumer readiness; and content. The tool aggregates data from multiple sources and is designed to support the efforts of the mobile industry and the wider international community to deliver on the ambition of universal access to the internet.

"Already more than three billion people worldwide are accessing the internet via mobile, but this still leaves more than four billion people offline and excluded from the powerful opportunities for social and economic development that the mobile internet enables," said Mats Granryd, director general of the GSMA. "Mobile is the primary enabler of connectivity in developing world markets where the high cost of deploying fixed-line networks means that internet penetration is low."

He added, "Connectivity to the mobile internet is also an important foundation upon which the **UN** Sustainable Development Goals (SDGs) depend for their delivery, providing a platform for reducing poverty and improving healthcare, education, commerce, information sharing, employment and innovation.

"The launch of the GSMA's Mobile Connectivity Index will provide valuable insights that will inform projects designed to support the ambition of universal access to the internet"

According to GSMA Intelligence, there were approximately 3.2bn people accessing the mobile internet at the end of 2015, representing about 44 per cent of the global population. Among these users, about a third were accessing the internet using 2G networks and two-thirds were using mobile broadband (3G/4G).

This leaves approximately 4.16bn people, about 56 per cent of the global population, still not on the mobile internet. Among this segment, 2.5bn people (34 per cent of the global population) live within the footprint of a mobile broadband network but do not access services, while approximately 1.6bn (22 per cent) live outside of a mobile broadband network footprint.

The GSMA Mobile Connectivity Index is an analytical tool that measures the performance of 134 countries, representing more than 95 per cent of the world's population.

SA university accelerates video delivery to remote campuses

A PARTNERSHIP BETWEEN video creation and management solutions supplier **Sonic Foundry, Inc** and the **University of the Free State (UFS)** has revolutionised academic video delivery to bandwidth-challenged areas in South Africa.

The university's IDEAS Lab in the open and distance learning campus, which is in the UFS South Campus, (Previously, ICT Innovation in School Education Department (ICTISE)) have been using Sonic Foundry's Mediasite platform for the past five years to provide video instruction to Free State Department of Education learners and teachers at 83 rural high schools in the region. More than 54,000 learners and 3,000 teachers participate in the instruction on a weekly basis.

The university's IDEAS Lab uses a private Mediasite network that includes Mediasite Video Platform at the end-point schools to deliver five hours of daily video lectures from highly-qualified teachers from around the Free State province. Videos are created in the central IDEAS Lab studio using Mediasite, and then automatically distributed to the remote Mediasite end-points via a robust MPLS VSAT content delivery network.

"Often rural areas present unique bandwidth challenges, either from a cost or infrastructure limitation, or both. We have architected Mediasite not just for online environments, but for distributed video deployments as well. Mediasite has the unique ability to put the content in front of the right audience using network optimisation for viewing in local schools, while keeping it centrally managed," said Gary Weis, chief executive officer, Sonic Foundry.

The distributed content maintains the benefits of a centrally-managed, secure and automated Mediasite deployment, including powerful analytics that measure student and school success.

"We can see what videos schools are viewing and judge that against how much the school is improving at the end of the day. Although we take a holistic educational approach, we can definitely see a direct correlation between Mediasite and success. The more content a school views, the longer they view it and the more they repeat watching the lessons, the better learning results they have at the end of the term and the end of the year," said Edward Musgrave, IT & AV manager, IDEAS Lab, University of the Free State.

Since the program began in 2011, most school sites have shown improvement in pass rates, with some schools jumping from 17 per cent to over 96 per cent.

Trusted by 1,400 colleges and universities globally, the patented Mediasite webcasting and video content management system quickly and cost-effectively automates the capture, management, delivery and search of live and on-demand videos and rich media.

Improving healthcare access and quality with VMware

A SOFTWARE TOOLKIT from **Medic Mobile** is not only improving Africans' access to healthcare, in the remotest parts of Africa, but also the quality of that healthcare. The mobile and web tools work on the simplest of mobile technologies - a basic cell phone - enabling health workers to register pregnancies, track disease outbreaks, keep stock of medicines, and communicate about emergencies and with patients.

An American non-profit, Medic Mobile is made possible via a mobile network virtualised by **VMware,** a specialist in cloud infrastructure and business mobility. Currently, more than 9,000 healthcare workers, serving more than five million people in 23 countries are using Medic Mobile tools with tangible results.

The results pertaining to maternal and infant health provide an especially good illustration of the successful use of mobility. In Uganda, for example, infant mortality rates are falling year after year since the implementation of the technology. This is largely due to the ability of community health workers to now register pregnancies via a simple text message to the Medic Mobile system, containing the patient's name, estimated due date, and risk factors. The

Using VMware technologies, Medic Mobile has developed a software kit to be used in almost any kind of environment

system automatically creates a patient ID and sends automated reminders to patient and health worker regarding scheduled antenatal appointments. If a patient misses an appointment the system will alert the heath worker to follow up with the patient.

The Medic Mobile solution is Linux-based and runs on VMware Player. It allows the healthcare workers to collect and transmit patient information wirelessly to the central clinic using basic cell phones. The result dramatically reduces travel time and costs while improving the quality of healthcare delivery.

Congo choisit une solution biométrique mobile de Gemalto

GEMALTO A REMPORTÉ un appel d'offres international émis par la **CENI**, la Commission électorale nationale indépendante de la République démocratique du Congo (RDC). Dans le cadre de la modernisation du registre électoral national, quelque 22 000 kits portables d'enregistrement biométrique des électeurs seront livrés. Les stations mobiles d'enrôlement Coesys de Gemalto permettront aux 18 000 centres d'inscription de saisir rapidement portraits numériques, empreintes digitales et signature des citoyens, puis d'émettre instantanément des cartes d'électeurs personnalisées en vue des prochaines élections nationales. Gemalto formera également les instructeurs de la CENI et assurera maintenance et assistance tout au long du projet d'inscription des électeurs, l'un des plus importants à ce jour.

Les solutions d'enrôlement Coesys de Gemalto sont intégrées dans une valise renforcée pouvant facilement

La signature du contrat d'un projet d'enregistrement des plus importants à ce jour

être déployées partout dans le pays. La CENI utilisera ces stations mobiles d'enrôlement pour assurer la saisie fiable et de qualité des données personnelles et biométriques des citoyens. Ce processus permettra à la fois d'ajouter les nouveaux électeurs éligibles au registre électoral, de nettoyer et mettre à jour les dossiers existants avant les échéances électorales. L'utilisation de données biométriques irréfutables permettra en particulier de détecter et éliminer les doublons. La CENI est responsable de la gestion et du fonctionnement de la totalité du processus d'enregistrement, ainsi que de la mise à jour du registre électoral.

« Nous recherchions un partenaire de confiance pour rendre possible cet ambitieux programme, qui devrait permettre d'enregistrer jusqu'à 45 millions d'électeurs », explique Corneille Nangaa, Président de la CENI. « Avec une solide expérience dans les projets d'enrôlement et de registres électoraux en Afrique et ailleurs, Gemalto nous fournit une solution technique adaptée et la capacité de réagir rapidement à nos exigences. »

« Notre solution d'enregistrement sécurisée permettra à la CENI d'établir un registre électoral fiable et reconnu comme tel, fondé sur des données biométriques incontestables, et offre toute la flexibilité nécessaire à la mise en place de bureaux d'inscription des électeurs sur tout le territoire », a déclaré Frédéric Trojani, Vice-Président Exécutif, Programmes Gouvernementaux chez Gemalto.

FTTH à Maroc Telecom

LA FIBRE OPTIQUE jusque chez le client, FTTH ou ''Fiber To The Home'', de **Maroc Telecom** est disponible dans l'ensemble des grandes villes du Maroc. Après une phase d'expérimentation concluante au niveau de quartiers pilotes à Casablanca et Rabat, Maroc Telecom fournit désormais le service dans l'ensemble des grandes villes du Royaume. La fibre de Maroc Telecom est installée jusqu'à l'intérieur du domicile ou du lieu de travail des clients pour leur apporter les meilleurs débits. La fibre optique permet également l'utilisation de nouvelles applications pour les clients particuliers et entreprises, telles que la télévision en haute définition (HD), le multi-écrans avec un usage simultané du réseau sans contrainte liée au partage des débits, la visioconférence, le télétravail, etc.

La Tunisie accueillera une conférence internationale

L'**UIT** ET LE **Gouvernement de la Tunisie** ont signé l'accord de pays hôte officialisant les dispositions prises pour l'Assemblée mondiale de normalisation des télécommunications de 2016 (AMNT16), conférence majeure de l'UIT organisée tous les quatre ans pour définir les orientations stratégiques et la structure du Secteur de la normalisation des télécommunications de l'UIT (UITT).

Cet accord a été signé par le Secrétaire général de l'Union, Houlin Zhao, et le Ministre des technologies de communication et de l'économie numérique de la Tunisie, M. Noomane Fehri, lors d'une cérémonie organisée à l'occasion de la session de 2016 du Conseil de l'UIT.

L'AMNT16 se tiendra du 25 octobre au 3 novembre à Yasmine Hammamet et sera précédée, le 24 octobre, du Colloque mondial sur la normalisation. Lors de l'Assemblée, les Membres du Secteur de la normalisation des télécommunications pourront veiller à ce que les activités de normalisation menées à l'UIT continuent d'appuyer la poursuite de l'édification de la société de l'information évoluée à l'horizon 2020.

L'AMNT16 définira la stratégie mise en oeuvre par l'UIT dans le domaine de la normalisation, afin d'appuyer le développement de l'infrastructure des TIC, élément indispensable à la réussite de l'innovation dans des domaines comme les aspects non radioélectriques des IMT2020 (5G), l'Internet des objets (IoT) et les villes intelligentes et durables. Elle aura notamment pour tâche de revoir les mécanismes de collaboration entre l'Union et d'autres organismes de normalisation, les PME et les communautés Open Source, ainsi que les nombreux secteurs dits "verticaux", pour lesquels les TIC sont indispensables.

"L'AMNT16 qui aura lieu à la fin de cette année en Tunisie définira les réseaux qui prendront en charge les télécommunications, les TIC et les services de demain", a déclaré le Secrétaire général de l'UIT, Houlin Zhao.

Tillman et GTS investiront en infrastructure

TILLMAN GREEN, LLC et **Global Tower Solutions (GTS)** ont annoncé la formation de **Tillman GTS,** une coentreprise mondiale qui redéfinira la manière dont l'énergie est consommée par l'industrie des tours de télécommunications.

La nouvelle entreprise rassemble l'expérience de Tillman dans la construction des infrastructures de télécommunications dans les marchés émergents et les marchés développés, et l'expérience de GTS avec les sources d'énergie renouvelable.

Tillman GTS prévoit investir 500 millions de dollars au cours des trois prochaines années en fournissant des capitaux au marché des tours de télécommunications mobiles. Ses efforts porteront sur le marché concurrentiel du diesel en tirant parti de ses sources d'énergie renouvelable et ses solutions de batteries de stockage.

« Nous sommes ravis d'annoncer ce partenariat avec GTS. Tillman Green est convaincue que l'énergie renouvelable est une importante ressource qui peut profiter aux entreprises et aux particuliers à travers le monde. GTS a fait ses preuves dans l'identification et l'exécution de solutions solaires pour les entreprises de tours de télécommunications et nous avons l'intention de construire une plateforme d'énergie renouvelable ensemble », a déclaré Sanjiv Ahuja, président du conseil d'administration de Tillman Green.

« Les gouvernements, les propriétaires de tours de télécommunications et leurs clients s'unissent pour exiger une alternative d'énergie verte au diesel comme source d'énergie pour les tours de télécommunications hors réseau ou sur un mauvais réseau. Notre solution solaire et de batterie est une solution énergétique fiable, économique et durable pour l'industrie. Nous croyons que le partenariat avec Tillman Green nous permettra de déployer nos solutions dans le marché de la téléphonie mobile des pays en développement et des pays développés, et d'autres secteurs qui peuvent profiter de notre expertise », a commenté Robert Suss, Directeur général de Global Tower Solutions.

"Putting the right tools and technologies in front of users enables them to better respond to the changing content consumption habits of their respective audiences."

- Ben Davenport
director of marketing
Dalet

"The insatiable demand for data, driven by increasing amounts of smart devices and endless apps, has transformed the mobile world and made continuous connectivity more crucial than ever before."

- Arif Reza
chief executive officer
WorldSIM

"Africa is the world's second fastest economic growth region, and it is common knowledge that connectivity is crucial to its continued growth."

- Kenneth Munyi
country manager, Kenya
iWayAfrica

"Enterprises of all sizes must educate themselves on the security threats they face and invest in solid measures to protect their networks and corporate data."

- Rick Rogers
area manager for East and West Africa
Check Point Software Technologies

"With the advent of Big Data, Internet of Things and cloud-based business applications and the increasing need for companies to use high-speed connectivity, the requirement for high-

speed internet access is growing across businesses of all sizes and in all sectors."

- Iain Stevenson
chief executive officer
Comsol

"Enhancing education and training in the field of ICT is critical in enabling countries to establish and develop national e-strategies for sustainable development."

- Brahima Sanou
director, telecommunication development bureau
International Telecommunication Union (ITU)

"If the cloud has taught us anything, it is that the customer wants flexibility from their partner relationships as well as their software and solutions."

- Dan Connolly
senior vice president and general manager
Westcon-Comstor Cloud Solutions Practice

"By providing OTT localised content, operators can incentivise consumers to purchase smartphones, and in-turn increase smartphone penetration on their networks."

- Mak Rahnama
senior analyst
Pyramid Research

A strategically significant satellite launch

ABS celebrates the successful launch of ABS-2A, one year after the launch of ABS-3A, and the promise of optimised connections across Africa and Asia

ABS IS ONE of the fastest growing global satellite operators in the world. ABS offers a complete range of tailored solutions including broadcasting, data and telecommunication services to broadcasters, service providers, enterprises and government organisations.

ABS recently successfully launched ABS-2A aboard a SpaceX Falcon 9 full thrust rocket from Cape Canaveral, Florida, in the USA. The satellite lifted off as part of a dual launch, with a second deployment following a half-hour after lift off.

The ABS-2A satellite is the second of the pair of the innovated all-electric propulsion satellites, manufactured by Boeing Satellite Systems International. It is equipped with an all Ku-band payload of 48 high performance transponders connecting Africa, MENA, Russia, South Asia and South East Asia regions. ABS-2A will be co-located with ABS-2 and will deliver enhanced broadcast and data services from 75°E.

A global fleet

Before the launch of ABS-2A, ABS already operated a fleet of satellites, comprising: ABS-2, ABS-3, ABS-3A ABS-4/Mobisat-1, ABS-6, and ABS-7. The satellite fleet covers over 80 per cent of the world's population across the Americas, Africa, Asia Pacific, Europe, the Middle East, CIS and Russia.

A new satellite, ABS-8, is under procurement for future deployment.

"Satellites are unmatched by any other forms of technology for video distribution and it has been ABS's intention to strategically build satellites that have been designed for this purpose." - Tom Choi, CEO, ABS

A growing business

Tom Choi, CEO of ABS, "The launch of ABS-2A represents a significant milestone for ABS. Today we launched the third of our three satellite build strategy which completes a US$700mn capex programme. ABS-2, ABS-3A and ABS-2A are extremely capable satellites which have been optimised for CATV and DTH services.

"Satellites are unmatched by any other forms of technology for video distribution and it has been ABS's intention to strategically build satellites that have been designed for this purpose. ABS's video business has grown from 10 per cent of our business in 2012 to 45 per cent today. With the launch of ABS-2A, the second satellite to our premium DTH neighbourhood at 75°E, we will be offering our customers expansion capacity and in-orbit redundancy for their growing DTH businesses.

"We would like to thank our technology partners Boeing and SpaceX for making today's achievement possible and we also thank the US EXIM bank for believing in our vision and providing financing for all of our satellites."

All-electric

Boeing gained a contract to build ABS-2A, a 702SP (small platform)

The ABS-2A satellite at launch in June 2016

satellite, after building the world's first all-electric propulsion satellite for ABS in 2015 - the ABS-3A spacecraft.

The ABS-3A has been operational since an on-orbit handover last August - at which point it expanded ABS' communications services in the Americas, Europe, the Middle East and Africa.

The ABS-3A spacecraft's all-electric xenon-ion propulsion system contains a sufficient quantity of the inert, non-hazardous element xenon to extend the satellite's operations beyond the expected spacecraft design life of 15 years. Boeing says that the spacecraft's technology is based on 210,000 hours of ion propulsion flight experience and is 10 times more efficient than liquid-fuelled rockets. Four 25-cm (9.8-in) thrusters using xenon as a propellant allow the 702SP satellite to maintain station-keeping while using only 5 kg (11 lb) of fuel per year.

"Boeing is proud to have ABS as one of our first customers to choose the 702SP design, the world's first all-electric propulsion satellite," said Mark Spiwak, president of Boeing Satellite Systems International.

"Electric propulsion is more efficient and helps lower the mass of a satellite allowing for larger, high-power payload capabilities." ℭ

Les priorités stratégiques et les objectifs financiers

Autour de la croissance en des opportunités dans la connectivité et du développement dans la Vidéo

Eutelsat continuera de prendre en considération les opportunités industriels

CES DERNIERS MOIS, les activités traditionnelles dans le secteur des Services fixes par Satellite sont entrées dans une phase de ralentissement causée par une quasi-stabilité de la demande dans les marchés matures (Europe) et une conjoncture économique dégradée dans des zones comme la Russie ou l'Amérique latine, seulement partiellement compensée par une croissance plus robuste en Afrique subsaharienne, au Moyen-Orient et Afrique du nord et en Asie. La concurrence continue de s'accentuer dans les Services de Données où nous anticipons la poursuite de la pression les prix.

Dans ce contexte, Eutelsat a procédé à un réexamen approfondi de ses priorités stratégiques et de ses objectifs financiers.

Le cash-flow, et les investissements

La priorité du Groupe sera, dans un premier temps, de maximiser la génération de cash-flow libre de ses activités existantes afin de poursuivre son désendettement compte tenu de son engagement de maintenir une note de crédit de qualité Investissement, tout en versant un dividende stable ou en croissance et en finançant des investissements ciblés préparant un retour à la croissance.

Des économies en matière d'investissement seront réalisées sans impacter le plan de déploiement actuel et le chiffre d'affaires futur qui en résulte. Ces économies seront permises par la mise en place d'une approche de conception par les coûts, un accent mis, le cas échéant, sur les opportunités de partenariat ou de «condosats» ainsi que sur les charges utiles hébergées, tout en en capitalisant sur les gains d'efficacité de l'industrie. Les investissements dans les infrastructures au sol feront l'objet d'un contrôle rigoureux.

Les applications vidéo et les services de données

Eutelsat continuera de prendre en considération les opportunités de rationaliser son portefeuille d'actifs, dans la continuité de la cession d'Alterna'TV en avril 2016, ainsi que les opportunités de partenariats pour certains de ses projets dans l'Internet Haut Débit à l'image de ViaSat en Europe et Inframed en Afrique.
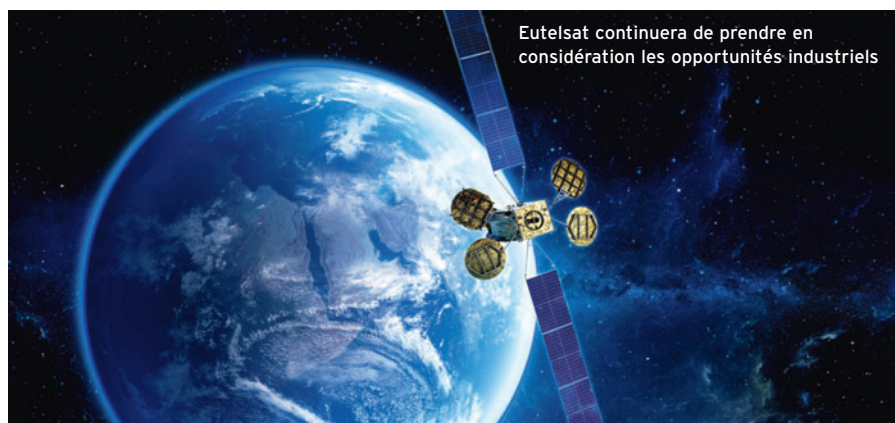
L'organisation d'Eutelsat est réalignée autour des cinq lignes d'activité suivantes : métiers de base (Vidéo, Services de Données, Services aux gouvernements) et Connectivité (Haut Débit Fixe et Connectivité Mobile). Des mesures seront prises pour poursuivre le renforcement des forces de vente et les indicateurs sur la base desquels le personnel clé sera évalué seront alignés sur les objectifs de génération de cash-flow. La demande dans les Applications Vidéo est attendue en faible croissance dans les cinq prochaines années. D'une part, les marchés émergents, en particulier le Moyen-Orient et l'Afrique, où Eutelsat bénéficie de pôles audiovisuels de référence devraient poursuivre leur croissance grâce notamment à une augmentation du nombre de chaînes. La demande globale en volume pour les Services de Données va continuer à croître compte tenu de besoins de connectivité accrus. Toutefois, l'environnement dans cette Application restera difficile, avec l'arrivée de nouvelles technologies, en particulier des systèmes HTS de forte capacité qui viendront s'ajouter à un marché d'ores et déjà en situation de surcapacité et se traduiront par une pression accrue sur les prix.

Les Services aux gouvernements sera impacté par l'arrivée de capacité HTS, avec toutefois un rythme de migration plus lent que dans les Services de Données. En revanche, des opportunités de développement existent dans d'autres régions comme par exemple l'Europe, l'Asie, le Moyen-Orient et l'Afrique du Nord ainsi que pour les applications civiles.

La vidéo, et l'Internet Haut Débit

La Vidéo par satellite va continuer de croître, avec, à long terme une distribution Vidéo qui s'effectuera pour l'essentiel par deux canaux : le satellite d'une part, et la Télévision sur IP d'autre part.

De nouvelles sources de demande seront générées par l'externalisation de certains services par les télédiffuseurs. Dans ce contexte, une intégration plus forte avec l'écosystème IP en s'appuyant sur les technologies existantes permettra au satellite d'améliorer l'expérience du téléspectateur, d'accroître sa fidélisation et de générer des services supplémentaires pour les télédiffuseurs, les opérateurs de télévision payante et les annonceurs.

Le marché potentiel pour l'Internet Haut Débit par satellite est significatif. Il est en effet soutenu par le faible niveau de déploiement des infrastructures Haut Débit dans les marchés émergents et dans certains pays développés ainsi que par la compétitivité-coût du satellite par rapport aux infrastructures terrestres dans les zones à faible densité. Le principal défi pour l'industrie du satellite sera d'être en mesure de délivrer une qualité comparable à la fibre à un prix similaire. Cet objectif sera atteint au début de la prochaine décennie avec l'arrivée de satellites « VHTS » (satellites de très forte capacité).

Dans le même temps, Eutelsat se préparera à l'avènement d'un marché de masse pour cette application en déployant différents modèles commerciaux sur sa capacité existante ou commandée (KA-SAT, projets en Russie et en Afrique) et en travaillant avec des partenaires industriels pour réduire le coût des terminaux afin de déterminer le niveau adapté d'investissement à partir de 2018. ✆

A European source for African satcom services

How the European Space Agency extends is technological reach to benefit the continent's businesses and communities

ESA's ARTES programme offers extensive applications research

Sway4edu2 delivers satellite services to rural schools

ACROSS THE MPUMALANGA Province of South Africa, where some communities can be as much as 100km from the nearest major towns or cities and have no fixed-line or traditional wireless communications, rural primary schools are set to use satcoms in the delivery of eLearning on a regular basis following the success of a trial, which began in July 2015.

Delivered by the European Space Agency (ESA), the pilot project beamed eLearning lessons via satellite to012 schools equipped with VSAT terminals, with some 6,500 students in Mpumalanga Province benefitting from the installation. With the recommendation now made by the country's Minister of Education of Mpumalanga, Mrs Makgabo Reginah Mhaule, to expand on the pilot scheme once it ends in Q2 2017, seven more schools will soon take delivery of satellite terminals, solar panels, laptops, tablets, projectors and screens and loudspeakers, taking to 19 the number of primary schools connected. This will also mean primary schools in the entire Ximhungwe district of Mpumalanga Province are covered. The whole eLearning bundle provides Internet connectivity and access to eLearning for teachers and students, media content and other online monitoring tools and information. It is understood that South Africa's Department of Education has made a commitment to pay for the service at least until mid-2020.

A sustainable project

Supervising the installation of the equipment, as well the provision of 'raw material' for the online courses, is SA's Singita Community Development foundation, which is working in collaboration with the Department of Education. As part of their remit they have taken on the mentoring and training of 200 teachers in the effective use of the system.

According to ESA's Davide Tomassini, the easy-to-use system relies on each school to look after it but with this happening without much trouble it appears to be a sustainable project that "stands out as one of only a few among many distance education projects, that really seems to be taking off".

Behind the project is ESA and its telecommunications programme, which seeks to enhance the competitiveness of European industry by promoting the use of satellites in such functions as: aviation services, broadcasting, multimedia and mobile communications, education, data relay, search and rescue and wildlife conservation. ESA is working together with Openet Technologies in partnership with Luxembourg's satellite broadband operator SESTechcom Services to close the digital divide for the unconnected. Speaking of these new Sway4edu2, (Satellite Way for Education), services, ESA's Amnon Ginati said the services had been developed within ESA's ARTES (Advanced Research in Telecommunications Systems) applications programme and can be used in a variety of ways. In the mornings they can support teachers and students, in the afternoons to promote new teaching methods, and in the evenings to provide educational media and entertainment in the local language for the whole community. If the service were rolled out nationally, it could potentially provide connectivity for some 3,000 rural primary schools.

Sway4edu2 also began educational pilots in rural regions of the Democratic Republic of Congo in the second half of 2015.

Environmental awareness

In addition to the educational value of the system, it is also a valuable tool for raising environmental awareness among rural communities, according to Pam Richardson, Singita wildlife and game reserve organisation's community development director.

She said, "One of the eLearning courses will assist teachers and, thereby, their students to foster awareness of the importance of preserving the local wildlife heritage, and of adopting a more sustainable approach to their own daily living. Game reserves across Africa are at risk and need the close collaboration of local communities to keep them safe. This course is seen as an important tool in achieving this."

Today, Singita operates over half a million acres of pristine land in Africa and responsible for successful community development projects, making a tangible difference in the lives of the people living and working in and around its 12 lodges and camps, each a unique experience in its own right, in five regions across three countries in Africa. Being involved in the ESA project could have far-reaching benefits for Singita's wildlife conservation efforts in the long-run. ✆

Tim Guest

Usage management and use cases

Ongoing conversations and issues that are presently being raised within the mediation community

BILLING MEDIATION IS not easily addressed, at least in an organised way. However, it is an area of operational management that prompts a number of responses. As product manager for billing mediation at DigitalRoute, I have gained insights from ongoing conversations and issues that are raised within the mediation community.

The function of mediation

I think the telco/BSS market is not fully versed in the importance of usage management. Those who have an old, legacy-based view of what to expect from mediation applications are seriously at risk of overlooking important opportunities. For many, this is already the reality.

The issue here isn't really just the value of usage management itself, which is just one functional extension among many possible albeit arguably the most impactful one at the present time. It's that those of us who work in and with mediation need to expand the frame of our conversation but are not doing so quickly enough. I feel strongly that we can't do that by hiding behind either old terminology or old functionality.

I know from first hand experience that the mediation and telco markets ten years ago bear little resemblance to the market today and nor should the products within it. usage management is one, if an important, part of the change. I think we need to put this, and other terms, on an equal footing with mediation itself.

We (and I include DigitalRoute in this) talk a lot about 'use cases': individual functional solutions to solve specific, individual business problems. Personally, I don't like the term because I think it minimises the perception of what mediation (or, for that matter, any other application) is and does.

In the world as I see it, success is dependent upon a broader view and use cases offer only a narrow way to approach the conversation. To me, mediation is a central component or hub that tackles the demands of enterprise data integration and management. If we always keep in mind this more all-encompassing definition then we will access more opportunities to leverage the technology and spend less time being lost in the weeds, with the inevitable limited benefits that follow.

Responsive processes

In BSS, the phrase that 'launched a thousand ships' (at least back in the late 90s) is 'real-time'. Real-Time has been a core part of the conversation ever since, but it's still shrouded in interpretation rather than clarity in many senses. What is real-time? What it does it mean in the context of applications?

For instance, some say real-time is hard to design and expensive to run. But I could just as well argue that batch-systems are more expensive as they are idle for long periods of time and then burst with high loads of data that needs to be processed quickly. Also, you have to factor in transaction safety to batch-mode, and trust me, that is a real pain to design and handle! I know. I've worked on it. My point is, there isn't an easy answer; every approach presents different challenges but all present challenges nonetheless.

It is true that real-time processing requires extremely responsive systems with low latency and a high level of parallelism that must always be up and running. This sets new requirements on both design and hardware. Batch, legacy systems are incapable of addressing these so something has to give as the industry and services progress. And that's what the reader really needs to worry about; what his IT is capable of delivering to support his commercial goals. To that extent, the underlying complexity of system design is our problem; not yours.

Acting, not measuring

Another term, 'acting', is or at any rate should be the next keyword in enterprise data integration and management. Since its inception, mediation has essentially been about measurement but in my view, it isn't just this task that's important any more. While measuring, in batch, real time or both remains a core requirement, it's what you do with the measurements that's important today. It's predictive and proactive actions that are likely to be the biggest weapon mediation can deliver to telco fighting for market share on today's commercial battleground. ✆

Danniel Elmbear, product manager, DigitalRoute

Mediation is a critical factor in managing the enterprise data market (IMAGE: olly)

A new wave in wireless communication

How wireless backhaul technologies and other solutions offered by companies such as CBNL enable operators to work efficiently in increasingly data-driven markets

IN INCREASINGLY DATA-DRIVEN markets, operators look for technologies that provide high capacity and superior efficiency. They value solutions that improve network spectral efficiency, whilst delivering significant ownership savings over existing or alternative technologies.

Operators can learn from enterprises such as CBNL how wireless backhaul technologies in particular can support their drive towards cost-efficiencies. They look to senior professionals such as Dr John Naylon, chief technology officer (CTO) at CBNL, on such solutions as small cell backhaul architectures and - in particular - the company's VectaStar portfolio.

Deployed in over 45 countries, VectaStar is a proven solution - utilised for backhaul, small cell backhaul, enterprise access and Internet service provider (ISP) network applications. Offering 600Mb/s per link, up to 20km range and total cost of ownership (TCO) savings of up to 50 per cent, VectaStar represents a persuasive business case for operators seeking to improve capacity and profitability. It is a versatile platform, and arguments for purchasing range include not only cost and capacity but also scalability and spectral efficiency. It is possible, for example, to gain spectral efficiency improvements of at least 40 per cent, when compared to point-to-point, through sector aggregation. It is possible for a single installation team to connect new sites quickly, with no need for additional spectrum, and to significantly reduce network power consumption and environmental impact.

Backhaul for next-gen connections

Dr Naylon recently discussed with Communications Africa/Afrique the steps

Dr John Naylon, CTO at CBNL

taken by CBNL to advance network technologies for the next generation of deployments around the world, including Africa's emerging LTE networks, where data consumption requires increasingly sophisticated and agile network management.

Dr Naylon highlighted CBNL's millimetre wave licensed point to multipoint (PMP) solution, introduced in April 2016 - a 39GHz VectaStar variant that anticipates the scarcity of spectrum resource by offering a more efficient route to transform last mile throughput to multiple Gigabits per second (Gbps). He cited research by analysts at Real Wireless, which indicated that a typical ISP, building out a network to supply carrier-grade connectivity to enterprises, can utilise PMP microwave and sub-6GHz to break even more quickly than comparable point-to-point (PTP)

deployments, potentially enabling connections with 67 per cent more customers and up to 1.8x higher returns on investment (ROI). He spoke also of his own research, which indicates that "efficiency will become more critical as networks evolve", as costs rise along with exponential increases in data traffic. He sees critical junctures for operators in both spectrum management and the equipment deployed - and hence stresses the critical impact of virtualisation, of virtual networks that can gain more functionality from existing physical assets, which often will have already been paid for through previous operational ROI.

There is real-world evidence that virtualisation does indeed offer real promise. Virtual architectures already create valuable new revenue streams in established and emerging technology markets. Perhaps most notably, South Africa offers numerous examples of how organisations have become more efficient and profitable during this decade - with solutions from enterprises such as VMWare, HP, IBM, Juniper and Oracle, channelled through vendors such as Westcon Africa. Dr Naylon sees the future for African operators extending virtualised scenarios into new LTE deployments, to complement existing fixed broadband services, supported by increasingly agile backhaul solutions supporting strategies geared towards superior cost-efficiency, capacity and reach. In this sense, technologies like PMP microwave incorporate virtualisation techniques to enable multiple service provision from existing operational equipment and services.

Dr Naylon said, "Operators are waking up to the potential of virtualisation to optimise business models and provide a more competitive edge in the market." ©

KENET gains 10GE high capacity carrier Ethernet network

TELCO SYSTEMS, WHICH provides CE 2.0, MPLS, IP and SDN & NFV solutions, has deployed a new 10GE high capacity carrier Ethernet network for the **Kenya Education Network (KENET),** to supporting the communication needs of education and research institutions in the country. KENET is designated as the National Research and Education Network (NREN) of Kenya and provides Internet bandwidth services to member institution campuses.

The new carrier Ethernet network built by Telco Systems for KENET initially provides Internet access and data center

Professor Meoli Kashorda, executive director, KENET

interconnectivity to all the universities and research institutes in Kenya. KENET's new network could eventually be extended to provide connectivity to other educational institutions, including the primary and secondary schools in the country.

Professor Meoli Kashorda, executive director of KENET, said, "We are confident that Telco Systems and its technology will support our growth plans and contribute to helping us fulfill our mission of providing high quality communications services to all the educational institutions in our country."

La construction d'un datacenter à Diamniadio

Autour de l'ambition de Tigo Sénégal de faire découvrir et vivre le digital lifestyle aux populations et entreprises du Sénégal

DEPUIS 2012, TIGO SÉNÉGAL, filiale du groupe Millicom, a investi massivement dans la modernisation et l'expansion de son infrastructure afin de devenir un acteur incontournable au Sénégal dans les télécommunications, l'accès à Internet et les services mobiles innovants.

La promesse du digital lifestyle

Tigo est la marque commerciale de Sentel SA qui est une filiale du groupe Millicom International Cellular (MIC) exploitée au Sénégal depuis 2005. Tigo est aujourd'hui le deuxième opérateur de téléphonie mobile au Sénégal, avec 23% de part de marché, et 3 400 000 clients.

Depuis le lancement de sa 3G+, Tigo Sénégal s'est donné pour ambition de faire découvrir et vivre le digital lifestyle aux populations et entreprises du Sénégal. Cette promesse se concrétise d'une part par les offres innovantes et accessibles que l'opérateur lance sur le marché, mais surtout s'inscrit dans une démarche d'entreprise citoyenne qui souhaite mettre le numérique au service des communautés et du développement économique du pays.

La stratégie de Tigo et du groupe Millicom passe par le déploiement de technologies innovantes qui permettront de fournir les services numériques de dernières générations aux populations vivant au Sénégal et aux entreprises établies dans le pays: services en ligne, services financiers, vidéo à la demande, accès Internet à très haut débit, accès internet dédié pour les entreprises, etc.

Cette stratégie ambitieuse s'inscrit parfaitement dans le cadre du Plan Sénégal Emergent (PSE) qui vise à positionner le Sénégal comme leader de la sous-région.

Cette stratégie se décline également dans le pôle urbain de Diamniadio, zone à l'avant-garde des projets de développements du PSE.

La réelle avancée technologique

Sur Diamniadio, Tigo a pour ambition d'offrir le meilleur des technologies et services avec :

- La construction d'un Datacenter de dernière génération offrant une sécurité et disponibilité aux standards internationaux et sur la base d'un design limitant la consommation d'énergie et qui favorise les
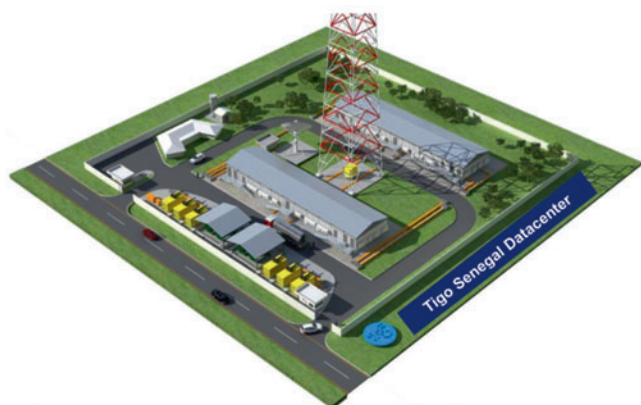
Audience chez le Premier Ministre (de Gauche à droite): M. Diego Camberos, Directeur Général de Tigo Sénégal, le Premier Ministre du Sénégal SEM Mahammed Boun Abdallah Dionne, Mme Cynthia Gordon Directrice Générale de Tigo zone Afrique, M. Pape Ndiaye Ka, Responsable de la Régulation et des Relations gouvernementales

énergies renouvelables. Ce Datacenter permettra de fournir des solutions d'hébergement sécurisées pour les entreprises au Sénégal.
- L'installation d'un bureau de Tigo au niveau de Diamniadio.
- L'aménagement du Pôle urbain Diamniadio en une vitrine technologique pour le Sénégal, en tant que ville connectée au très haut débit fixe et mobile.

Ce projet d'une valeur de plus de trois milliards de francs CFA (3 000 000 000) marque une réelle avancée technologique pour l'Etat du Sénégal et les entreprises implantées au Sénégal et dans la Sous région.

Ce vendredi 17 juin 2016, Mme Cynthia Gordon Directrice Générale de Millicom, Zone Afrique et M. Diego Camberos, Directeur Général de Tigo Sénégal, ont rencontré le premier ministre du Sénégal Son Excellence M. Mahammed Boun Abdallah Dionne pour réitérer l'engagement de Tigo au Sénégal.

Un entreprise africain

La construction du Datacenter a été l'un des sujets clés de la rencontre.

« Ce Datacenter sera un facilitateur d'échanges et de mémorisation des données, un outil d'optimisation et d'accélération de performance pour les entreprises. Tigo entend apporter sa pierre à l'édifice dans la construction d'un environnement technologique de haute pointe au Sénégal » a affirmé M. Diego Camberos, au sortir de cette rencontre.

Mme Cynthia Gordon a à son tour rappelé que ce projet s'inscrit dans une stratégie globale du groupe : « Après le Datacenter du Tchad que nous venons de terminer, nous sommes heureux de rééditer ce projet ici au Sénégal. Nous souhaitons accompagner les entreprises africaines en général, et celle du Sénégal en particulier dans leur développement grâce aux technologies innovantes et aux services numériques ».

Mme Gordon a également ajouté : « Nous sommes particulièrement fiers de soutenir le gouvernement Sénégalais dans ses efforts pour que le Senegal devienne un hub en matière de technologies de l'information et de la communication pour la sous région.» ✆

Le Datacenter à Diamniadio

Accelerating business-driven network transformation

How next generation LTE architectures can reshape and reinvigorate connectivity industries in Africa

AFRICA PRESENTS UNIQUE and exciting market challenges for telecommunications service providers and mobile network operators (MNOs). A complex interplay of conditions, including the sheer scale of a large land mass with its often difficult and impenetrable terrain and highly distributed population densities, makes the cost-effective creation of a telephony infrastructure capable of supporting a modern economy difficult.

Outside of the well developed economies of South Africa, Nigeria and Zimbabwe, which offer the most clearly defined mass markets in the sub-Saharan region, wireless has burgeoned across the continent and the subsequent build out of next-generation broadband mobile services has helped to significantly boost Africa's digital economy. Mobile technology now accounts for six per cent of GDP and is on the rise. Indeed, industry analysts predict that the continued migration to mobile broadband and the growth of new services will see this figure increase to 8.2 per cent of GDP by 2020[1].

Today, mobile plays a central role in improving access to health, finance, education and public services. Newly connected populations have gained access to the internet and a growing range of financial services for the first time and in some areas the new mobile infrastructure has enabled solutions that are improving access to reliable energy and clean water.

But when it comes to enterprise networking, today's providers face a new and evolving challenge – scaling infrastructures and implementing new services in hard to reach locations while maintaining required performance and availability levels.

The rollout of 3G and 4G networks has played a major role in changing the region's network landscape

Africa – a 'mobile first' continent

According to the GSMA, in the last five years, the sub-Saharan Africa (SSA) region has become the fastest growing area in terms of

The region is experiencing rapid technology migration to high-speed networks, due to the growing availability of lower-cost smartphone devices and on going network developments by operators

both unique subscribers and connections; in mid-2015 there were 367mn subscribers and rising. What's more, the region is experiencing rapid technology migration to high-speed networks, thanks to the growing availability of lower-cost smartphone devices and on going network developments by operators.

All this digital transformation is playing a central role in addressing a range of socio-economic developmental challenges across the region. Greater digital inclusion is improving access to vital services such as education and healthcare while driving economic and infrastructure development, and increased productivity and employment across the economy.

According to estimates, the communications technology industry alone is set to employ 3.5mn by 2020, while wireless networks are stimulating a thriving mobile economic ecosystem on the continent.

Nairobi in Kenya, for example, has become the inspirational poster-child for other African countries, thanks to innovations such as the M-Pesa mobile money services, Ushahidi crowdsourcing app and iHub community space for technology entrepreneurs. Indeed, research suggests there are now around two hundred IT hubs, 3,500 new tech ventures and a projected US$1bn in venture capital for start-ups across the SSA. Meanwhile, in the six major markets of Nigeria, South Africa, Tanzania, Ethiopia and DR Congo, incubators and accelerators have sprung up alongside a flourishing app economy reinforcing local trends in business and modernisation.

This dynamic digital economy has seen tech giants like IBM, Microsoft and Google expand their operations in the region and partner with innovation centres. Meanwhile, Facebook's recent announcement that it will beam Internet connectivity directly to remote

parts of Africa via satellite is set to provide limited services for free to the poorest and most offline parts of the continent.

With the world's fastest growing population forecast to consist of 540mn smartphone owners by 2020, according to the GSMA, emerging enterprise networking opportunities are already making it possible for businesses across the region to reach new customers and monetise new products and services.

This growth in the mobile enterprise is being generated through value-added services within the ecosystem, including the increasingly transformative nature of the Internet of Things (IoT). We're already witnessing the emergence of innovative new machine-to-machine (M2M) services that include mission-critical healthcare applications such as dialysis and cardiac monitoring, blue light applications, smart metering, security surveillance and banking with placement ATM machines.

Mobile technology now accounts for six per cent of GDP in sub-Sharan Africa and is on the rise

Rollout of next generation networks

The rollout of 3G and 4G networks has played a major role in changing the region's network landscape. According to the GSMA, as of June 2015, commercial 3G networks had been launched in 41 countries across the SSA region, while 4G networks had been launched in 23 countries. The recent launch of 4G in Kenya and the government-backed single wholesale network (SWN) plans in Rwanda, is helping to drive further significant regional expansion as migration to higher speed mobile broadband networks continues apace.

However, the implementation of digital transformation in Africa requires specific and localised execution. 3G/4G LTE network technologies are proving vital to help drive growth throughout the wireless ecosystem. Africa's low rate of fixed-broadband penetration has, until now, presented a key problem for businesses looking to create primary connections where wires aren't available or installation would be too expensive or solutions would take too long to deploy. But these cost-effective solutions can be deployed in hours, compared to the weeks and months it would take to install fibre – delivering a 'day one Internet' solution that addresses the fast evolving network landscape and helps businesses to reach every part of the continent.

Indeed, LTE network architectures are proving to be the ideal solution for eliminating these barriers to deployment, enabling enterprise networking and connectivity in almost any location. Providing not only the
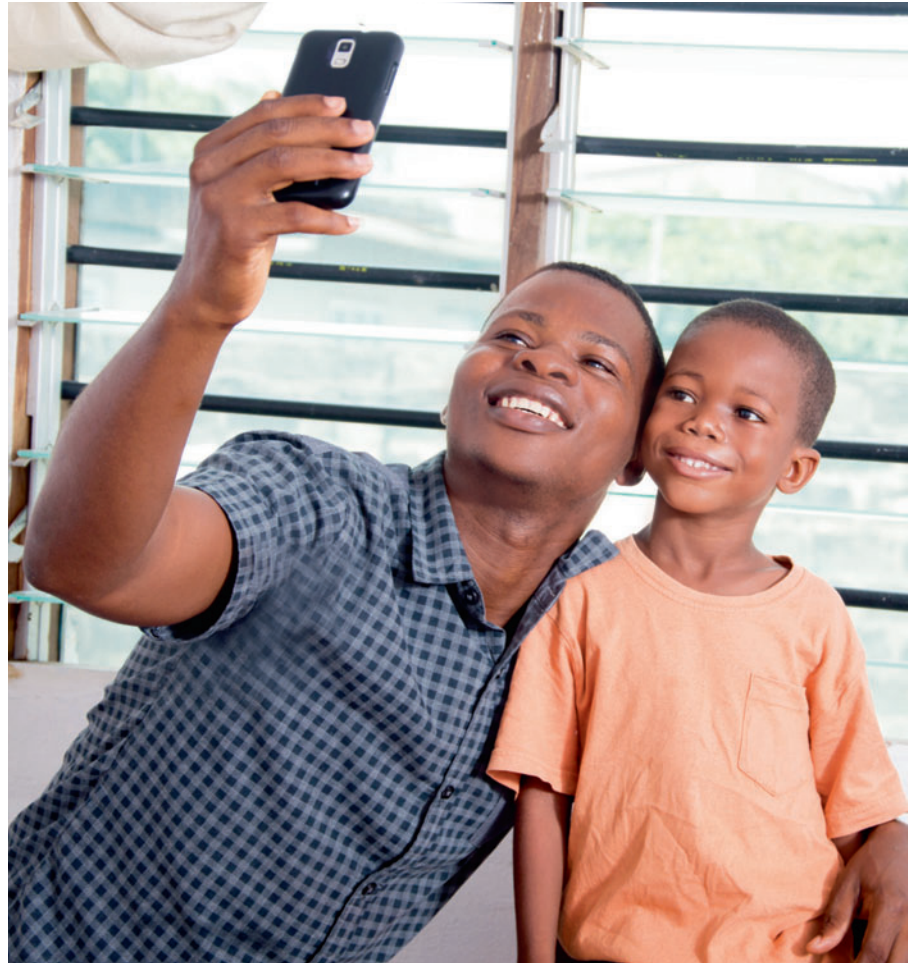
LTE enables greater network capacity and efficiencies along with the higher network speeds that translate into a better user experience – especially in rural and underserved areas

agility, cost, performance and security African enterprises need, LTE also enables greater network capacity and efficiencies along with the higher network speeds that translate into a better user experience – especially in rural and underserved areas.

Today, mobile plays a central role in improving access to health, finance, education and public services

Today's distributed enterprises, emerging industries and government agencies need to be able to get Internet and network connectivity to new locations such as retail stores, banks, fast-food restaurants or any customer or citizen-facing environment fast. And the practical applications of LTE network architectures offer a low-cost way to achieve data connectivity and reach in locations that were previously unreachable or uneconomic to support.

As governments within the region adopt LTE radio frequency spectrum policies, operators are readying themselves to build out the next-generation networks capable of catering for the burgeoning data demand; by 2020 the number

M2M connections is forecast to reach 30mn.

As a consequence, a growing number of organisations in the region are now deploying 3G/4G LTE networks for permanent primary connectivity, finding they can optimise and pool data among multiple distributed locations thanks to the highly agile architecture offered by the technology.

From 'pop up' networking for industries like retail, to enabling seamless load balancing between multiple WAN sources, LTE offers African enterprises the networking flexibility they need to serve a variety of customer and use cases. That includes enabling new M2M services whose success depends on easy low-cost installation and reliable day-to-day operations. Designed specifically to meet the space constraints and connectivity challenges many businesses in the region face, LTE networking technology is fast becoming the 'go to' solution in the M2M space.

The future of the SSA networking landscape looks bright, as businesses and government organisations continue to connect with the region's demographic with innovative uses of mobile technology. ⓒ

Hubert Da Costa, vice-president EMEA, Cradlepoint

A collaborative payments ecosystem to fit Africa's digital future

With so many successful mobile wallet offerings and mobile banking solutions available across Africa, how can African businesses find a way to easily collaborate with all of them?

SOCIETY IS BECOMING cashless. Driven by a dramatic change in consumer behaviour as well as major digital disruption, a revolution is happening in the payments world, with all types of transactions increasingly going digital. In Africa, new trends in payment solutions are helping to facilitate the growth of businesses as well as bring informal financial services to the unbanked.

Although the continent's transition to contactless payments lags well behind Europe, where cash usage is expected to decline to just 43 per cent by 2018, Africa has accelerated ahead in its adoption of mobile financial services. The early dramatic rise of mobile money across parts of East and West Africa has led to an influx of mobile money services and the exploration of innovative partnerships between banks, mobile network operators (MNOs) and retailers. This in turn has created a large but unwieldly ecosystem of mobile financial service propositions looking for ways to easily and securely integrate with third parties.

End-to-end solutions
Liquid Telecom Payment Solutions has been providing payment solutions across Africa since 1992, when it was first known as transaction payment solutions (TPS). Acquired by the Liquid Telecom Group in 2007, it today provides end-to-end solutions tailored for businesses of all sizes in Africa's financial and retail sectors.

As well as offering the latest state-of-the-art mobile, in-store point of sale (POS) terminals, Liquid Telecom Payment Solutions can also provide till integration and fully-servicing ATM machines.

Following a customer transaction, Liquid Telecom is then able to offer behind the scenes support - including transaction processing and comprehensive financial reporting. This could support, for example, a large bank looking to improve client identification and transaction processing, or a small business looking to efficiently manage its cash flow.

Moving with the times
Recently, Liquid Telecom Payment Solutions has been exploring ways to help businesses across Africa tap into new trends in payment solutions.

The African market is becoming saturated with mobile money platforms eager to replicate the astonishing rise and success of the Vodafone M-Pesa service, which at the end of March 2016 surpassed the 25 million customer milestone globally.

The service transformed economic interaction in Kenya, bringing informal financial services to an estimated 20 million Kenyans and helping to facilitate the growth of thousands of small and medium-sized enterprises (SMEs).

Mobile money has had a profound effect on other African economies as well. In Zimbabwe, EcoCash is becoming an increasingly preferred mode of payment for a range of goods and services - even helping to ease the country's current cash crisis.

Restrictive regulation and a population more reliant on traditional banking services has meant mobile money adoption failed to reach such heady heights in South Africa. But that is now changing as a flurry of new services enter the market, including WeChat wallet; an ambitious mobile money offering that, among other things, allows for peer-to-peer money transfers and the ability to cash out at retailers.

Collaborative financial services
Yet as more sophisticated and successful mobile wallet solutions appear on the market, the harder it has become to create a payments ecosystem that can accommodate all of them.

There is a growing need to not only bring together disparate mobile wallet and mobile banking offerings, but to also integrate the large number of third party programmes - the partnerships with supermarkets, gas stations, utility companies and alike.

Which is why Liquid Telecom Payment Solutions is offering one unified platform that can bring all these parties together.

Mobile Financial System Platform by Liquid Telecom Payment Solutions is the first white label product of its kind in Africa that can provide banks, MNOs and retailers with access to value-added services from unlimited stakeholders on any mobile wallet programme.

Offering a comprehensive agency management system, the platform can enable businesses to integrate various wallet programmes and service providers - creating a new ecosystem of collaborative mobile financial services.

A more advanced payments ecosystem that brings together the latest innovations in mobile financial services is critical to helping all businesses across Africa grow, and this platform ensures Liquid Telecom Payment Solutions is at the heart of their digital journey. ✆
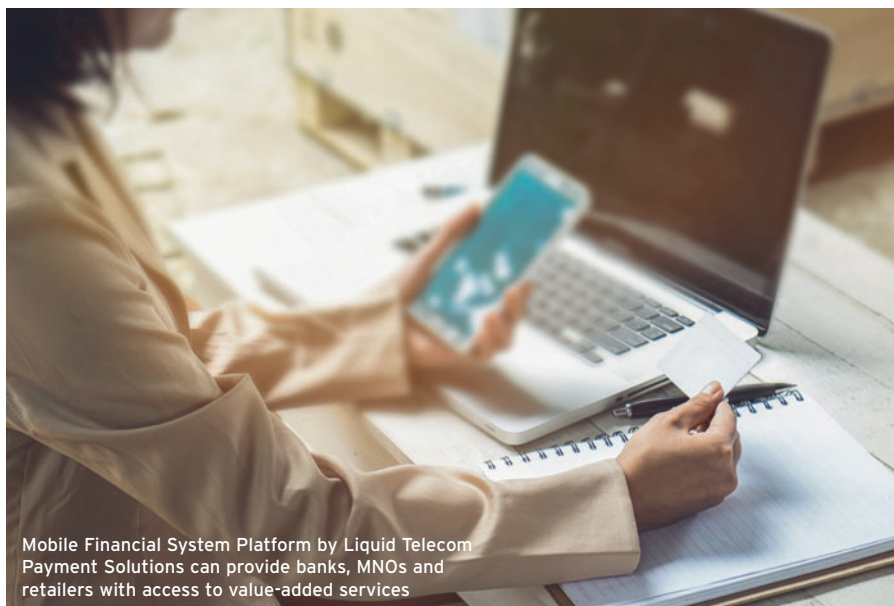
Mobile Financial System Platform by Liquid Telecom Payment Solutions can provide banks, MNOs and retailers with access to value-added services

The ultimate digital money machine

Financial businesses and communications professionals have been working together in Kenya to shape to future of finance

BETWEEN 2015-21, SUB-SAHARAN Africa is expected to be home to between 170mn to 690mn smartphones users, and by 2021 it is expected that the region shall have attracted one billion mobile phone subscribers. the region will also see that between 180mn to 800mn mobile devices will be in use in the six years to 2021.

"In Africa the mobile phone, among other mobile devices, is the ultimate face of the digital concept given that it has provided Africa with the first and major encounter and experience on the Internet," explained Rajiv Bhatia, Ericsson's head of mobile financial services/head of commerce, Europe, Middle East and Africa (EMEA), in a presentation titled M-Commerce — a major source of innovation at the recent Dot Finance 2016 event held in Nairobi, Kenya.

Ericsson was among the major partners involved in organising the event. Others included RedCloud (premier partner); IBM, MISYS, HP Enterprise, Infosys Finance, Intel, Temenos (gold partners); Sopra Banking, ITS (silver partners) and ebankit, Automic, Matchi-Biz, zagtrader, Profile and Rise (bronze partners).

Hosted from 4-5 May 2016 at the Visa Oshwal Centre located in Westlands, the event attracted over 600 delegates, 300 financial institutions, 60 exhibitors, representing 29 countries, and 100 speakers that included 14 keynote, 38 keynote stage, 16 innovation stage and 19 startup ones

Among interesting and relevant topics were 'The Future of Finance', 'Digital Banking & Customer Experience' , 'Fintech', 'MicroFinance & Financial inclusion', 'Innovation', 'Risk, Security & Compliance' , 'Payments & CryptoCurrencies', 'Insurance & Capital Markets' and 'Islamic Banking'. The gamut of the knowledge and ideas provided at the event was diverse and could only be captured through intense concentration and focus on specialist areas.

Bhatia asserted that about 50bn connected devices shall be in use globally by 2020 indicating a massive, much accelerated pace of change in technology and connectivity that will, in turn, exponentially impact financial services. He described mobile devices agents of several firms as the entry point to mobile money and financial services usage.

"We are empowering our agents enabling them to educate consumers and raise confidence in them," he explained. According to him, mobile E-commerce will provide an interesting future in Africa with lots of activities.

> **Among the areas of interest in fintech innovation will include in credit in terms of payments, acceptances and cross-border remittances and lending**

Areas of interest in fintech innovation include credit, in terms of payments, acceptances and cross-border remittances and lending, according to Bhatia. Related panel discussions were held by Jon Matonis, founding director, Bitcoin Foundation; Graham Tonkin, head of business, Nedbank and John Karanja, founder, BitHub Africa.

Dot Finance Africa brought together financial institutions, leading technology vendors and disruptive startups to build valuable new partnerships and define the future of finance in Africa. (Photo: Dot Finance Africa)

What does it mean for Africa?

The discussions heard that bitcoins form part of the emerging global blockchain currency that enable savings especially in multiple currencies. Moreover, according to Karanja, such global blockchain currencies allow for more access to credit and insurance. "Bitcoins are already trading and investors are working to promote their use. There is low barrier to entrance and they allow global financial interactions," Karanja explained. The audience also heard that the bitcoins concept is still relatively new in many markets especially in Africa where transmitting bitcoins online has presented many conceptual issues that are least understood. Yet, bitcoins remain free of poor monetary policies that lead conditions such as inflation; they allow for peer-to-peer lending at relatively lower rates.

According to Karanja, investors committed to the development and the growth of bitcoins usage in the country have now turned their focus to other markets. Yet, it is still not illegal to use bitcoins in the country he explained.

Many e-commerce startups all over the world are committing to finding solutions that could improve on customer experience in banking. The discussions heard that internet blockchains for instance provide blocks every ten minutes showing every blockchain transaction. "Blockchains are at their infancy in Africa and in many developing world markets but it is still critical to watch the space to find out what will happen," the panelists observed. ℭ

Mwangi Mumero

An African context for virtual communities

Young, educated and tech savvy Africans are in increasingly using social media to connect and converse

THE RECENTLY-RELEASED REPORT 'How Africa Tweets', compiled by Portland Communications, represents research and analysis around 1.6bn geolocated tweets and the top 5,000 hashtags on the continent in 2015.

This year , the third such survey indicated that there was a 34 per cent growth in Twitter usage from 2012. Tweets on showbiz and entertainment dominated the conservation during last year, representing over 20 per cent of the overall discussions, beating politics, which has grown to 10 per cent.

Nigeria, South Africa, Ethiopia, Burundi and Egypt were the most active in political discussions. Analysts have noted that most of these countries held their elections in the year. Another important finding was that English was the dominant language on Twitter in Africa. Of all tweets, 77 per cent were in English, followed by Arabic and French at seven per cent and four per cent respectively. Across the continent, Egypt had the largest volume of tweets at 450mn representing 28 per centof the continent's total, followed by Nigeria at 350mn, South Africa at 325mn, Kenya at 76mn, and Ghana at 65mn. However, even with growth in Twitter use across the continent, commercial hashtags - such as brand names and promotional offers - are less prominent in Africa compared to other regions such as the North America.

"Our previous studies have shown that twitter in Africa was a space of social interaction or frivolous banter. With this study, the platform is prevalent with serious debate about politics and government," noted Mark Flanagan, Portland's senior partner for content and digital strategy.

Perspectives on a platform

To get a further perspective on the report, Communications Africa/Afrique interviewed Allan Kamau, associate director at Portland , who is in charge of the company's Nairobi office:

Communications Africa/Afrique: Africa seems to be doing quite well in entertainment compared to commerce and other areas. Is this demographics? Young educated tech savvy persons taking on twitter?

Allan Kamau: Yes, it is definitely partially demographics. Young people make up a large

Allan Kamau, associate director, Portland Communications

part of Twitter users in Africa and are usually more in tune with the entertainment industry. We found that entertainment is one of the most popular Twitter themes from around the world, showing a similar demographic breakdown on Twitter globally.

CA: Commerce is performing lower compared to politics. Is it that businesses have not realised the potential of Twitter in marketing their products/services? Is it that many business execs are not adept with social media and specifically Twitter?

AK: This has been a trend we have found in our past 'How Africa Tweets' studies as well. It's a pervasive trend in Twitter use in Africa that is a puzzling one. We think that it points to an overall lower level of ecommerce in most of Africa.

There is a potential for African marketing on Twitter and other social media platforms to expand and grow in the future. It will be interesting to check back in on this statistic in the coming years and see if commercial use on Twitter has grown.

CA: How can businesses and individual consultants benefit from their twitter accounts across the continent?

AK: Twitter is a great platform for reaching people from all over Africa. We found in our study that conversations move from country to country almost instantaneously, aided by the

dominance of English as a common language on Twitter.

Businesses and individuals should take advantage of Twitter as a tool to reach their audiences effectively and quickly. As stated above, there is a lot of space on Twitter for brands to talk about their products and services, as there hasn't been much ecommerce on Twitter so far.

CA: As your press release notes, Twitter is 'more of a space for social interaction or social banter'. What impact do you think twitter and other social platforms have on the real political changes happening on the continent?

AK: Social interaction about entertainment is currently the most popular theme on Twitter in Africa, but political conversations are also very popular - making up approximately 10 per cent of all of the top hashtags. We have investigated political hashtags from election campaigns and social issues and found that they were very widespread through those communities. Hashtags like #BringBackOurGirls were extremely pervasive in the media beyond Twitter as well, bringing people's attention to important issues. We see Twitter playing an important role in political change in Africa moving forward.

CA: While your research focused on Twitter, in your opinion, are other social networks - specifically, Facebook - underutilised by businesses in the continent?

AK: Twitter is an interesting platform to study because it's a platform that allows open exchanges of ideas between diverse groups of people. We've found it to be one of the best places for important conversations, especially in Africa. However, other platforms like Facebook are important as well.

Facebook is still the largest social network in Africa, and will only continue to grow. There is no doubt that commercial and political conversations are taking place on the platform, but there is also room for those conversations to grow. Facebook is a more personal platform than Twitter and people largely use it to keep in touch with their friends and family, so of course there is potential to utilise this platform for different means. ✆

Mwangi Mumero

Why clearer signals mean more radio revenues

How digital coding for digital shortwave technology improves reception and how it can support the commercial viability of African radio stations

RADIO BROADCASTING HAS come a long way in sub-Saharan Africa since it first arrived in the Francophone and Anglophone territories in the 1920s and 1930s. The broadcast media has played - and continues to play - a crucial role in consolidating peace and democracy in the region. At this year's 'World Radio Day', the UNESCO Regional Office in Dakar, Senegal also spoke of the importance of community radio as a tool for education and for tackling disasters and other major regional emergencies.

Strategic development

By 2030, radio is expected to play an even more strategic role in Sub-Saharan Africa. 2016 is the first year of the 2030 Agenda for Sustainable Development, a new global blueprint for change that was adopted by world leaders in September 2015 at the United Nations in New York. This builds on the Millennium Development Goals (MDGs) that concluded last year. Kevin Perkins of Farm Radio International, which works with more than 600 radio partners across 39 African countries focusing on small-scale farmers, commented, "Strategically applying ICTs and radio in particular will be the key to achieving the ambitious Sustainable Development Goals within the next 15 years."

He continued, "Combined with cell phones, radio has been re-born as a two-way, interactive tool that can give voice to those who are typically heard from the least." Perkins said they are numerous examples of how interactive, participatory radio is accelerating change across sub-Saharan Africa. "With cell phones in their hands, rural people aren't limited to listening to radio programmes; they can also participate." Farm Radio International has developed a tool called beep2vox to give farmers a free way to connect with radio stations and shape the broadcasts that serve them. One of the projects currently employing

> ## "Radio cannot afford to wait to see TV digitised before embarking on its own digital journey."
>
> **- Ruxandra Obreja, chair, DRM Consortium**

FM analogue radio is widely used throughout Africa (IMAGE: Kasami)

beep2vox technology is a project designed to help create African farm radio programmes for women by women.

Modern communication

There remains, though, a sharp divide between Sub-Saharan Africa's urban 'haves' and the rural 'have-nots' - a fact exacerbated by the up to 3,000 languages spoken in the region. Although many countries have made the former colonial language the 'official' language of the country, not everyone is comfortable or even able to communicate in it. Jean-Pierre Ilboudo, chief of section for communication and information at UNESCO's Regional Office in Dakar, Senegal, observed, "Today, Africa is torn between its aspiration to modernisation - whose imported forms are mostly visible in the big cities - and its search for identity defined by a better understanding of its traditions, languages and customs."

There is also an incompatibility between the different FM, AM and shortwave systems that are in use. FM analogue broadcasting is widely-used throughout the African continent. But the FM band in most African major radio markets is now over-subscribed. Despite the spread of FM, radio broadcasting in Sub-Saharan Africa still relies heavily on shortwave - a feature of broadcasting not often seen elsewhere in the world. This comes with major drawbacks, including interference, fading and distortion. In

a bid to counter these problems Digital Radio Mondiale (DRM) was formed by the major international radio broadcasters (the BBC, VOA, Radio Deutsche Welle and others). The technology employs digital coding, which vastly improve AM/SW reception.

After a slow start, it is gaining ground in Africa led by Nigeria, Botswana, Zambia, Mozambique and South Africa. At the May 2016 Digital Broadcasting Forum held in Lagos, Nigeria, under the aegis of the Commonwealth Telecommunications Organisation (CTO), sub-Saharan policymakers, regulators and broadcasting executives expressed keen interest in how best to use spectrum and achieve success in the digital migration process. Ruxandra Obreja, DRM Consortium Chair warned that "radio cannot afford to wait to see TV digitised before embarking on its own digital journey".

South Africa is leading the way in this endeavour. The National Association of Broadcasters and the Southern African Digital Broadcasting Association (Sadiba) are trialling both DAB+ - an update to the original DAB technology that was developed in the mid 1980s - and DRM, in the province of Gauteng. Initially, DAB+ is being introduced alongside FM in urban centres while DRM is being introduced in addition to DAB+. ✆

Nnamdi Anyadike

Autour des campagnes « multi-locales »

Le temps est venu pour les annonceurs internationaux de franciser leur communication en Afrique

PARMI LES NOMBREUSES festivités qui marquent l'arrivée du Printemps, il en est une qui est peu connue du grand public, mais néanmoins chère au cœur des francophones vivant à l'étranger : la Fête de la Francophonie. Cinéma, littérature, musique, théâtre, concerts, des dizaines d'événements sont organisés la semaine du 17 mars, déclaré Journée Internationale de la Francophonie, pour célébrer sa richesse et son dynamisme sur les 5 continents. Pendant toute la durée du Festival, et dans des villes aussi éloignées qu'Abidjan, Oslo, Los Angeles, Tokyo, les participants découvrent chaque année de nouveaux artistes et nouvelles créations, tous unis malgré la distance, par un même attachement pour la langue française, et les cultures de la francophonie.

La langue, la culture, la diversité

Depuis que l'anglais s'est affirmé comme la langue de base du commerce et des affaires dans une économie mondialisée, il reste un espace où le français peut encore affirmer son importance, celui de la culture et du respect de la diversité. Pays à forte attractivité touristique, numéro un pour le nombre de visiteurs étrangers depuis plusieurs années, la France jouit depuis

France Buge, membre du inTV Group et Directeur des Etudes à TV5 Monde

longtemps d'une réputation d'excellence dans le domaine du luxe, du style et de la gastronomie, qui porte son rayonnement à l'échelle mondiale. Dans la classement su SoftPower établi par la firme de consultants Portland, en partenariat avec Facebook et ComeRes, la France se classe d'ailleurs à la troisième place mondiale dans le domaine de la culture – après les Etats Unis et le Royaume Uni – et premier sur le critère d'engagement sur la scène internationale grâce notamment à son important réseau diplomatique.

Selon l'étude Affluents 2015 d'Ipsos, un tiers des européens à hauts revenus connaissent aux moins deux langues étrangères, et 36% aiment regarder des chaînes de télévision d'autres pays. Autant de conditions favorables au français, qui est la deuxième langue la plus répandue dans les pays d'Europe non francophones, avec un pourcentage de pratiquants de 19% parmi les hauts revenus étudiés par Ipsos, soit une personne sur cinq. La pénétration du français est plus forte dans les pays du sud de l'Europe, notamment l'Italie (38%), ainsi qu'au Royaume Uni et en Irlande où le français reste la langue étrangère la plus enseignée. Pour des annonceurs qui visent les consommateurs instruits, ayant une appétence culturelle et ouverts au monde, les francophones constituent donc une cible de choix.

Des références culturelles

L'étude d'Ipsos montre ainsi que les francophones de seconde langue, sont plus nombreux à avoir suivi des études supérieures et à voyager fréquemment : 19% ont réalisé 6 voyages internationaux ou plus au cours de

Les participants de la Fête de la Francophonie découvrent de nouveaux artistes et nouvelles créations

l'année passée, contre 13% pour la population de référence. Ils profitent également de revenus qui sont supérieurs à ceux de leurs pairs, et sont plus nombreux à occuper des postes de direction dans les entreprises et administrations. L'appétence culturelle de la cible se manifeste, toujours selon Ipsos, dans des sorties plus nombreuses au cinéma et dans les musées.

L'intérêt pour les cultures francophones et un style de vie « à la française » se manifeste aussi chez des non francophones, en Asie et au Moyen Orient par exemple, qui ont accès aux programmes de TV5 Monde grâce au sous titrage. Toutefois, le plus grand bassin d'audience est en Afrique où se focalise désormais l'attention des investisseurs.

L'Organisation Internationale de la Francophonie estime à 212 millions le nombre de personnes qui pratiquent le français dans leur vie courante, dont un peu plus de la moitié en Afrique (55%). Le poids du continent noir devrait croître fortement puisque selon les démographes, l'Afrique générera plus de la moitié de la croissance démographique mondiale au cours des trois prochaines décennies. Si les objectifs sont atteints pour l'accès à l'enseignement, la population francophone mondiale pourrait atteindre 650

millions à l'horizon de 2060 selon l'OIF. Le pays qui devrait connaitre la plus forte croissance démographique sur le continent est le Nigéria, déjà classé au septième rang mondial pour sa population, et qui au rythme actuel devrait dépasser les Etats Unis pour se hisser à la troisième place des pays les plus peuplés au monde à l'horizon de 2050 !

Dans le meilleur des scénarios, l'addition des hausses de population et de pouvoir d'achat débouchera sur une hausse massive des besoins de consommation, tant dans l'alimentation et les produits de soin (hygiène beauté, santé), que pour les biens d'équipement (électroménager, transport). Dans une récente tribune, Celia Collins Directrice générale de l'agence médias Carat à Johannesburg, observait que « les grandes marques internationales ou régionales – telles que P&G, Coca Cola, General Motors, Diageo, Peugeot – avaient déjà augmenté leurs investissements et capacités de production en Afrique, et continueraient à développer fortement leur communication sur le continent. »

Un contexte favorable

Ce contexte est également favorable aux médias qui ont su établir au fil des années un lien direct et étroit avec les publics africains,

par-delà les frontières. TV5 Monde et France 24 ont ainsi vu la part des budgets africains dans leurs recettes publicitaires augmenter de 70% entre 2011 et 2015, sous l'impulsion d'annonceurs comme Castel, GSK mais aussi de banques et institutions gouvernementales. Nos médias internationaux leurs permettent d'atteindre efficacement les classes moyennes éduquées, notamment dans les pays où la publicité est sectorisée, avec des limitations voire des interdictions totales pour les chaînes nationales.

Parce qu'ils offrent aussi l'avantage de centraliser les points d'achat et de limiter le nombre de créations, les médias internationaux tels que TV5 Monde contribuent à réduire les coûts pour des annonceurs qui seraient tentés par des campagnes « multi-locales » conduites pays par pays. (Le site www.intvgroup.org présente de nombreuses études de cas et un guide destiné aux agences et annonceurs intéressés par ces questions).

Le français ne connait pas les frontières et à mesure que la communauté francophone grossit, les investisseurs trouveront dans nos médias des moyens rapides et efficaces pour communiquer auprès de leurs cibles, en Afrique et partout dans le monde. Le mouvement est déjà en marche. ✆

Le lancement de BBC Afrique en TV au Sénégal

BBC Infos A diffusé sur la chaîne télévision sénégalaise **Dunyaa TV (DTV)** pour la première fois. Dans une édition spéciale, outre l'opération de lancement co-présentée, il y avait au programme des sujets concernant l'actualité sénégalaise. Partie magazine il y aura des reportages sur la lutte sénégalaise et une nouvelle application pour téléphone portable conçue par un Dakarois, pour aider à se déplacer dans la capitale.

Aussi, la **Radio BBC Afrique** (105.6 FM pour le Sénégal) a présenté un débat spécial, enregistré à Dakar, sur les jeunes en Afrique et l'entreprenariat numérique.

"La part du Sénégal est importante pour nos résultats d'audience" souligne Hervé Yonkeu, rédacteur en chef de BBC Afrique. "Nous allons maintenant pouvoir faire bénéficier de nos émissions les téléspectateurs de DTV. L'équipe du bureau de Dakar continuera de couvrir les nouvelles importantes de l'actualité du Sénégal et du reste du monde et d'analyser l'actualité locale dans une perspective internationale".

Jupiter Diagne, directeur-général de DTV: " La retransmission de BBC Infos sur DTV constitue un plus pour la crédibilité de notre chaîne et renforcer le partenariat existant entre les deux media".

Léone Ouédraogo, présentateur de BBC Infos

L'audience de BBC Afrique, qui est diffusée dans 23 pays francophones, est estimée à 14,8 millions de personnes par semaine. Trois nouveaux journaux TV vont être diffusés au Sénégal dans un avenir proche. BBC infos est notre émission phare, un journal TV de 15 mn, consacré aux principaux dossiers de l'actualité en semaine, avec nos présentateurs Léone Ouédraogo, Olivier Weber et Vénuste Nshimiyimana. Le samedi BBC Eco revient sur les principales nouvelles économiques africaines et internationales et le dimanche, dans BBC Hebdo les téléspectateurs peuvent suivre un résumé de l'actualité de la semaine. Le JT BBC Afrique est diffusé en Afrique de l'Ouest et centrale, notamment au Burkina Faso, Niger, Cameroun, également en Guinée et République démocratique du Congo.

BBC Afrique, inaugurée il y a vingt ans en 1996, s'appuie sur les valeurs de la BBC pour offrir ce qu'il y a de mieux dans le journalisme aux auditeurs de l'Afrique francophone et de la diaspora dans le monde. Outre la radio, la Télévision et son site en ligne, BBC Afrique est présente sur **Twitter, Periscope, Facebook, Instagram** et **Soundcloud.**

Delivering more control
over content monetisation

IBC showcases solutions and shares knowledge for the creation, management and delivery of entertainment and news content

WITH A CONFERENCE held from 8-12 September and an exhibition running from 9-13 September in Amsterdam, the 2016 edition of IBC promises again to deliver insights and innovations to serve broadcast industry professionals across the globe.

Knowledge-sharing again is high calibre, with confirmed event speakers including: Claudia Vaccarone, head of market research and customer experience at Eutelsat; Dominique Delport, global managing director and chairman of Havas Media Group and Vivendi Content; Nikki Mendonca, EMEA president at OMD; Sir Martin Sorrell, CEO of WPP; and Spencer Stephens, CTO at Sony Pictures Entertainment. They will speaking to professionals among the 55,000 attendees expected. Their views will be borne out by the technologies and services promoted in fifteen exhibition halls - themed by creation, management, and delivery - and numerous feature areas. The event is designed this year to allow a deeper understanding of what works in broadcast media, as well as facilitating extensive networking.

Enterprises on show

Exhibitors at IBC include a plethora of solutions providers from all areas of the broadcast industry.

CSG International will show how it enables pay TV, telco, broadcaster, content owner and retailer clients to more rapidly launch and monetise new digital offerings for premium content and services. Dalet will demonstrate how its software-based solutions enable media organisations to create, manage and distribute content faster and more efficiently, fully maximising the value of assets. The Opera TV will explain how its portfolio powers rich web experiences on tens of millions of smart TVs, set-top boxes, Blu-ray players and chipsets.

Hewlett Packard Enterprise (HPE) will exhibit to offer insights into optimisation of the media services value chain and the alignment of

IBC is essential for resource control, content sharing and collaboration - using equipment like the Black Box DCX3000 Digital KVM Matrix switch (IMAGE: Black Box)

services with operations strategy, from content production to content distribution and customer experience. IBM Cloud Video will demonstrate the delivery of reliable and scalable video streaming services, which it provides to customers globally across industries. Infomir will offer its specialism in manufacturing set-top boxes for interactive television service providers, showcasing products including not only basic set-top boxes for IPTV, OTT services but also hybrid STB that supports DVB-C and DVB-C/T/T2 standards on top of IPTV and OTT, powerful premium 4K set-top boxes and Stalker Middleware. Minerva will offer its range of multiscreen clients including premium features such as whole home DVR, VOD, pay per view, network DVR, catch-up and restart TV, and customisable Internet content.

At IBC2016, SPB TV will showcase its latest products allowing broadcasters, media

companies and telcos to expand the scope of their video services, stay competitive and ensure a solid revenue stream.

Industry developments

Like many companies at IBC 2016, leading industry professionals will represent key developments, from new forms of collaboration or ventures to improved business modelling to technical breakthroughs.

One example of a development that has attracted interest and concern in equal measures is the prospect of virtual reality, or VR. It's still very early days for VR, and much of the debate is theoretical rather than evidence-based. However, there have been predictions for VR's disruptive impact on everything from filmed entertainment to journalism. It may difficult to predict the impact of VR, but it is reasonable to expect that VR will not repeat the failure of stereo 3D. Analysts such as Ampere's Andrew White maintain that, since VR does not compete with standard video in the same way that 3D did (since there is no way to convert 360-video to 2D while retaining the original context), it should be seen as an entirely new medium, running in parallel or as a companion to TV and movies, rather than as

Amongst exhibitors at IBC, Canon Europe is notable for its commercial reach and economic contribution; it is represented in 116 countries and employs over 18,000 people across Europe, the Middle East and Africa (EMEA)

an evolution of them. In line with this explanation, JPMorgan Securities forecasts that VR will be a US$13.5bn industry by 2020, mainly comprised of hardware sales topping 89.3mn units.

To mention just two of many significant investments in this space, VR display maker HTC recently earmarked US$100mn for content, and Disney has invested US$65mn in 360-video camera maker and producer Jaunt VR. It is well-documented, too, that Facebook showed significant interest in this area with its US$2bn purchase of Oculus Rift in 2014 - the launch of a 17-camera rig design pending. Of similar significance is Google's development of a VR ecosystem that promises to encompass the full value chain from capture to distribution - with the next notable event being the launch of Daydream, an advanced operating system for Android complete with Daydream-ready phones and motion controllers. Google is also making a cinema-style VR camera with IMAX – and it is expected to launch a number of physical VR cinemas later in 2016.

Broadcasters have spent the year road-testing VR on everything from documentaries to talk shows, with most of the development focused on live events. Futuresource Consulting analyst Carl Hibbert commented, "Currently, there is a joint industry initiative to make the technology work and drive uptake by enticing customers to the platform with free content. As soon as consumer payment becomes a core component, rights will become a major issue - whether that's sports, concerts or other types of event."

Sponsorship opportunities will also deliver new revenue streams. In this regard, NextVR co-founder Dave Cole said, "2016 is a year of audience building. We are not going to put a paywall in the way of audience aggregation."

Indeed, VR opens up new opportunities in advertising on multiple fronts. Outside of gaming and entertainment VR has a future in all manner of industries from flight simulation to architectural fly-throughs. Applications in education including teaching via virtual classrooms and providing digitised campus tours to prospective students. VR is also

Storage solutions are a critical component as content providers work with increasingly data-intensive processes and files, so equipment such as G-Technology's Evolution series generate a great deal of interest

making exciting strides in the healthcare market. Indeed, the global AR and VR healthcare market is poised to grow at a CAGR of around 17.8 per cent in the next five years to reach US$1.45bn by 2020, according to Research and Markets.

Influencers leading the debates on innovation

Another way in which IBC will seek both to represent and to influence the broadcast industry is through the Leaders' Summit, which is an exclusive invitation-only event attracting 150 leaders from the electronic media and entertainment industry in Europe, the Middle East ad North Africa. The Summit offers a blend

of penetrating insights from influential speakers, independent and exclusive research, and the collaborative participation of C-level delegates in a day-long event that informs and shapes future strategy.

The Leaders' Summit provides a single day of high-powered discussion. It takes place behind closed doors, so delegates can speak their minds, address the issues and highlight their concerns in an open and inspiring environment.

The agenda for 2016 incorporates key transformational insights and case studies to be shared across the industry. There will be exclusive research findings and networking. Sessions will include a discussion on reputational management and security - including what happens when data leaks can potentially

damage your brand and affect a company's share price. With content and user protection under intense scrutiny, there will much debating around the best practices available, the latest on security and how must be invested in corporate and network security. The 2016 programme also features a panel discussion on broadcasters' strategies for online audiences.

The IBC Leaders' Summit will look at how and what strategic stakes and partnerships are necessary and where smart business should be investing. It will offer an examination of the big regulatory issues - including the evolution of digital markets and media frameworks. ✆

The IP revolution at IBC 2016

A SIGNIFICANT PART of the Business Transformation stream at IBC 2016 will be dedicated to IP and Cloud. Under the theme 'Transformation in the Digital Era: Leadership, Strategy, Creativity in Media and Entertainment', there are key questions to be addressed:

- Are IT- and IP-based workflows ready to replace the entire broadcast chain, including the current standard SDI baseband operation?
- In a cloud-based world powered by giant geographically dispersed data centres, how secure is your data and content?

- How do you begin to approach a new enterprise system design?
- How do you move from CapEx to OpEx?
- Should it be SaaS- rather than hardware-based?
- What kind of case studies would be of benefit to your operation?
- How vertically integrated is your business?

Emerging superpowers like Amazon and Netflix have made dramatic gains thanks to exclusive content, ownership of data and complete control

of the user interface – diametrically opposed to the traditional scattergun broadcast model. This type of transformation is a major challenge to all legacy content owners, networks and distribution models. IBC 2016 seeks to define the future role of the internet for broadcast and content delivery, as vendors, broadcasters and standards bodies are working to bring about standardisation for IP-based operation, in order to prevent the type of fragmentation and proprietary-based systems that operators have been locked into in the past.

Fundamental factors for commercial content

Satellite operator SES responds to new viewing behaviours with extended platform capabilities and a hybrid delivery network

SATELLITE IS VITAL to the success of the future video landscape. It provides the answer to delivering high quality video, anywhere, and to any device. A white paper published by satellite operator SES at its recent Investor Days event - 'Satellite Captures the Wave of Video Growth' - affirms this concept, through the company's strategy for the video industry, and champions using a hybrid network to meet the high quality video demands of today's viewing public.

Looking towards the future, SES addresses its acquisition of RR Media in the White Paper. Based in Tel Aviv, Israel, RR Media is a digital media services company. SES is committed to merging RR Media with SPS, SES's media services subsidiary. The new company will support over 900 customers, 440 playout channels, 1,000 TV channels, and over 100 video on demand (VoD) platforms - including Netflix, Amazon, iTunes and Hulu. According to SES, "Technical infrastructure such as data centres, playouts, and teleports will be managed across the globe."

The satellite factor

SES considers the ways in which viewing behaviours are changing globally, and details the value of a hybrid satellite/terrestrial network in this landscape.

"Delivering one HD movie via terrestrial broadband to 2,500,000 viewers could cost thousands of euros. This compares to around 10 euros (US$11) to deliver one HD movie over satellite to a countless number of viewers, limited only by the boundaries of the satellite footprint," the White Paper explains. "This demand for quality and the delivery methods it requires is a key factor that makes satellite vital to the success of the future video landscape."

Video satellites strengthen the distribution ecosystem. According to SES, "Viewers are increasingly demanding to have an unrestricted experience (any place, any time, any device). Enabling such a video service demands a system with holistic capabilities where satellite

enabled distribution retains an essential role. Increasing reach, enhancing quality of experience, and delivering unsurpassed economic efficiency are among the key benefits of putting satellite communication at the centre of present and future distribution ecosystems."

In West Africa, SES is working with local broadcasters to assist the regional transition from analogue to digital

Capabilities for delivery

The SES global footprint is extensive enough to support delivery of an integrated, complementary video experience. SES details this approach in its white paper. The company defines the role of satellite technology in the new video ecosystem by focusing on a set of future oriented innovations, which are built on providing powerful capacity and high quality services. Its ambitious satellite launch plan will continue to feed the ever increasing bandwidth requirements of today's video ecosystem. And customers can access a full range of video distribution services within the SES group. From playout services, to media platform creation, the value chain of distributing content has become increasingly complex. SES offers to deliver to exacting standards throughout the video value chain.

A new enterprise

The merger of SPS and RR Media creates a new company that will develop and deliver solutions along the complete media value chain as an independent media solutions provider, focused on customer needs. SES's service subsidiary will work with broadcasters, content owners, distributors, and rights holders, so that they can benefit from a kind of 'one stop shop' solution. The company's white paper notes, "Technical infrastructure such as data centres, playouts, and teleports will be managed across the globe irrespective of the ownership behind. The complete range of services the new company has will be delivered in both developed and emerging markets."

Over time, the new enterprise will enhance SES's ability "to ensure seamless coverage and scalable product designs together with its strategic partners".

The satellite operator's capabilities in the video market, and its deep operational expertise will benefit diverse customers through simplified work flows for linear and non-linear content distribution. In terms of benefits to African broadcasters, SES offfers the example of its work in West Africa with local broadcasters as they transition from analogue to digital transmission. "SES supplies an end to end solution to these customers, from capacity in the sky to ground infrastructure, and finally service support."

The company adds that it "intends to support digitalisation by starting with the Ghanaian and Nigerian markets and eventually enhancing the television experience for the millions of viewers in all of West Africa". ©

SES is responding to the changing demands of video markets across the world

UCC distributes content with DTT

Uganda's communications body says broadcasting is the most widely accessed and used channel of communication in the country

THE UGANDA COMMUNICATIONS Commission (UCC) says broadcasting is the most widely accessed and used channel of communication in Uganda, due to its ability to reach a wide populace simultaneously at a low cost.

The UCC was established to implement the provisions of The UCC Act (2013), and the principal goal of developing a modern communications sub-sector and Infrastructure in Uganda. Its mandate is to undertake a range of functions in the following areas: licensing and standards; spectrum management; tariff regulation; research and development; consumer empowerment; policy advice & implementation; rural communications development; and capacity building. The UCC's Board of Commissioners are responsible for policy formulation and guidance to the Commission's management. With respect to broadcasting policy, the UCC ensures that the broadcasting industry continues to play a pivotal role in the socio-economic development of the country. As Dr. James Nsaba Buturo (MP), Minister of State for Information, Office of the President, wrote, the UCC aims to promote "national unity, democratisation of the airwaves, education of communities and strengthening of the moral fibre of society."

UCC is thus not only the regulator, but also a facilitator and promoter of coordinated and sustainable growth and development of Uganda's communications sector. The regulatory body of the communication industry in the country adds that the broadcasting industry is currently served by by 250 operational FM radio signals covering over 89 per cent of the country and 97 per cent of the population while the digital terrestrial television (DDT) currently covers 51 per cent of the country's geographical area and 65 per cent of the population.

UCC's performance report for 2014/15 notes, "Uganda has achieved 100 per cent radio signal with over 290 operational FM station. Every district in Uganda has more than two stations broadcasting in local languages. In June 2015, ahead of the global switchover from analogue to digital broadcasting, UCC embarked on a phased approach to analogue switch off, thereby heralding digital broadcasting in Uganda. Currently, the entire country, except a few shadow areas, enjoys digital broadcasting."

New interventions for DTT

In preparation for the transition of the broadcasting industry, various interventions were undertaken by the relevant stakeholders, although a key priority for the Commission was to ensure a coordinated and harmonised approach with neighbouring countries to ensure efficient utilisation of spectrum as well as limit interference of broadcasting services in areas along the borders.

"In this regard, Uganda completed the coordination arrangements with neighbouring countries" under the auspices of the International Telecommunication Union (ITU) and the African Telecommunications Union (ATU), "hence ensuring harmonisation of Uganda's plans with those of the region and neighbouring countries". UCC added that "this is a critical input for implementing the road map for digital migration in Uganda".

UCC confirms that it also reviewed the regulatory environment in a bid to promote the provision of digital terrestrial television services in Uganda - and, to this effect, a licensing framework was developed for digital terrestrial television in Uganda, which includes the digital signal distributor (DSD) and content service provider (CSP) licenses.

The Commission states, "This framework is expected to foster competition in the broadcasting industry, promote efficient utilisation of communication resources and promoting content creation."

Having developed the framework, UCC commenced conversion of existing analogue TV broadcasting licenses to the new regulatory framework.

Targeted rollouts

During the year under review, UCC also embarked on the second phase of the infrastructure roll out, to address other areas of the country covered by analogue broadcast. The second phase of support targeted 17 sites in the districts of Arua, Mbarara, Masindi, Msaka, Mbale, Hoima, Kisoro, Kabale and others. This involves the acquisition of and set up of equipment for the 17 sites, the satellite signal distribution network, and a network operation centre.

The Commission reported that, by the end of 2015, "50 per cent of the project phase had been completed". The aim was to make digital terrestrial television broadcasting signalling over all the areas in 2016 that were previously transmitting under the analogue broadcasting system.

The regulatory body says the communication sector has remained one of the fastest-growing sectors of the economy, with an average growth rate of 22 per cent over the last three years. It has also facilitated access to a diversity of quality communication services in its attempt to drive the development of a robust communication sector. ©

Geoffrey Muleme

Eseye's AnyNet Gold SIM connects companies

THE INTERNET OF Things (IoT) has dramatically shifted business models and disrupted numerous markets. However, in terms of global connectivity management solutions, it has fallen short. Enterprises across Africa are currently being held back due to poor coverage, network outages and industry complexity. To address this, **Eseye** offers its AnyNet Gold SIM. Africa's first true multi-IMSI SIM card, offering one SIM for multiple countries to simplify logistics, a private APN infrastructure for enhanced security and higher connectivity uptime compared to single IMSI solutions.

Established in 2007, Eseye is a leading global cellular internet connectivity provider for IoT devices. The company delivers machine-to-machine (M2M) solutions and designs and develops innovative long-life solutions focused on real business outcomes. Eseye covers a large global footprint, with customers in 116 countries, and offers unparalleled lifetime service and support for the most robust and reliable network for the Internet of Things.

The Eseye AnyNet Gold SIM solution

Eseye aims to provide customers with its simple managed connectivity solution. The AnyNet Gold SIM solution provides routing across multiple networks to ensure continuous service while also resolving challenges around security and reliability in both local and global deployments.

According to Stephen Stewart, Africa regional director at Eseye, if IoT deployments are to be successful, "units need to be operational 100 per cent of the time, without the concerns or barriers to doing business caused by data, management, or support". A recent study conducted by **James Brehm & Associates** supports Stephen's comment, finding that 73 per cent of enterprises are either experimenting with or implementing IoT solutions, but connectivity and interoperability are making global scalability a challenge.

Additionally, there is a common misconception that simply adding a SIM card will enable IoT innovation to operate like a mobile device, however this line of thinking can be time consuming and complex. As a result, many IoT solution providers have in the past turned to MNO SIM cards, relying on these MNOs or the service providers for granular details on device behaviour that simply haven't been available.

Eseye's main focus is to normalise the behaviour of IoT devices the world over, making IoT deployments easier and more predictable. These capabilities have proved to be pivotal in enabling Eseye to establish the largest global footprint of any non-mobile network operator, allowing the company to respond to growing client demand across developed, developing and emerging markets all over the world.

ADVERTISERS INDEX

LiveOps Cloud lance la plateforme CCaaS

LES ENTREPRISES DU monde entier, y compris des sociétés figurant au classement Global 500, ont investi des millions dans leurs centres de contact au cours des dix dernières années. Et pourtant, la plupart d'entre elles sont mal servies par une technologie qui n'a simplement pas l'échelle, la portée et l'intégration requises pour suivre le rythme de la demande qui existe pour une réponse client connectée en permanence. Afin de résoudre ce problème, **LiveOps** Cloud a développé CxEngage, une plateforme « Contact Center as a Service » (CCaaS) entièrement nouvelle présentant la fiabilité et l'évolutivité requises par les entreprises pour fournir des expériences de service client exceptionnelles, n'importe où. En misant sur ses premières innovations dans le centre de contact cloud et en exploitant ses antécédents en expérience client, LiveOps Cloud a conçu CxEngage afin de simplifier le centre de contact, tout en fournissant le contexte et les perspectives utiles requis pour exercer un impact immédiat sur le support clientèle.

Les fonctionnalités de CxEngage sont conçues pour offrir aux entreprises de toute taille : une administration sans efforts; Une performance informée; une expérience d'agent simplifiée; et un souveraineté des données.

« Avec CxEngage, les entreprises peuvent focaliser des ressources précieuses sur leurs clients au lieu d'entretenir l'infrastructure, améliorant ainsi directement les résultats d'une entreprise », a déclaré Jon Brinton, vice président exécutif et directeur général de **Mitel Cloud Services.** « CxEngage complète notre portefeuille existant en fournissant une solution de centre de contact omnicanal, dématérialisée, de classe entreprise qui est en phase avec la numérisation qu'exigent aujourd'hui les clients pour leurs besoins en termes de services. »

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