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A note from the Editor

THIS ISSUE OF Communications Africa looks at the digital innovations hoping to inspire the new age of connectivity across the continent, whether its through the provision of cost-effective Wi-Fi to the most remote parts of Africa, or the launch of Spacecom's latest satellite AMOS-17. This issue wil also feature cost-cutting connectivity from biNu, tech advancements furthering cybersecurity for cloudbased data centres, and the evolving role of 5G in developing smart cities across Africa.

Une note du rédacteur

CE NUMÉRO DE Communications Africa se penche sur les innovations numériques dans l'espoir d'inspirer le nouvel âge de la connectivité sur le continent, qu'il s'agisse de la fourniture d'un réseau Wi-Fi économique aux régions les plus isolées d'Afrique ou du lancement du dernier satellite AMOS de Spacecom. -17. Ce numéro proposera également une connectivité de BiNu qui réduira les coûts, des avancées technologiques renforcant la cybersécurité pour les centres de données basés sur le cloud et le rôle évolutif de la 5G dans le développement des villes intelligentes en Afrique.

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FEATURES

Digitalisation

Challenging the barriers of high-priced data, biNu CEO Stephen Newton is determined to bring Africa's #datafree b2b model to life, challenging messaging giant WhatsApp in the process.

Power

In light of its partnership with FG Wilson, Master Power Technologies' director Menno Parsons discusses the company's endeavour to provide power solutions to data centres throughout the continent.

ΙοΤ

Dietrich Brunner, global sales manager at Bosch Connected Devices and Solutions brings to light the significant role of sensorbased devices ahead of the fourth industrial revolution.

Mobile networks

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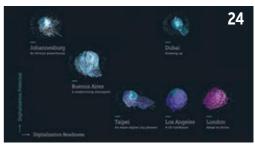
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With many MNOs steering clear of the provision of a wireless infrastructure in rural Africa, one wireless infrastructure manufacturer has ironed out the creases of off-grid network coverage to ensure protiftability across the board.



MainOne has launched a digitalisation campaign in order to further development across the continent.



Siemens lifts the lid on its new web-based application – the Atlas of Digitalisation

ARTICLES

AMOS-17 de Spacecom



Audit Bureau of

Circulations -

Business Magazines

Soigneusement conçu pour répondre aux besoins de l'Afrique en matière de communication, le directeur des activités commerciales et technologiques de Spacecom, Eran Shapiro, met en lumière les subtilités du satellite le plus avancé du continent sur le plan technologique.

Head Office:

University House

Alain Charles Publishing Ltd

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Chairman: Derek Fordham

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Editor: S	amantha Payne - sam	antha.payne@al	aincharles.com				
Editorial and Design team: Prashant AP, Miriam Brtkova, Praveen CP, Emmet McGonagle Manojkumar K, Deblina Roy Nonalynka Nongrum, Rhonita Patnaik Rahul Puthenveedu and Louise Waters							
Group Ec	ditor: Georgia Lewis						
	on: Srinidhi Chikkars oduction@alaincharle		lendes, Infant Pra	akash and Hariharan PM			
Publishe	r: Nick Fordham						
Sales Di	rector: Michael Ferri	lge					
Magazine Sales Manager: Vinay T Nair - Tel: +91 80 68888847 Email: vinay.nair@alaincharles.com							
Country	Representative	Telephone	Fax	Email			
India	Tanmay Mishra	+91 80 65700911		tanmay.mishra@alaincharles.com			
Nigeria	Bola Olowo	+234 8034349299		bola.olowo@alaincharles.com			
UAE	Vishnu Vijayakumar	+971 4 448 9260	+971 4 448 9261	vishnu.vijayakumar@alaincharles.com			
USA	Michael Tomashefsky	+1 203 226 2882	+1 203 226 7447	michael.tomashefsky@alaincharles.com			



Middle East Regional Office: Alain Charles Middle East FZ-LLC Office L2-112, Loft Office 2, Entrance B, PO Box 502207 Dubai Media City, UAE Telephone: +971 4 448 9260 Fax: +971 4 448 9261



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AGENDA

Microsoft to open African tech hub

IN AN EFFORT to take advantage of Africa's growing economy and youthful population, Microsoft Corp has announced plans to open an technology development centre on the content in the next five years.

The company plans to invest US\$100 million on sites in Kenya and Nigeria, with intentions to build applications using digital advancements in artificial intelligence (AI), mixed reality and machine learning. Microsoft also hopes to customise its applications for the African market, as well as develop new applications across Africa and further afield.

"The future of the world in terms of labour work force is here in Africa and we started working about The centre will building applications using AI and infrastructure that is needed in order to untap that other innovations.

opportunity, and give the opportunity for all the African countries in order to do the bridging in the details cap," remarked Jaime Galviz, COO and CMO for Microsoft's Middle East and Africa branch.

As Galviz notes, the company announced a data centre in South Africa at the beginning of this year in order to create infrastructure across the region.

Through the development of these centres, Microsoft also intends to support Microsoft's established businesses including Windows, Azure and Office.

Further, the development of these centres is set to lead to more than 100 jobs for local engineers across both Kenya and Nigeria.

On the topic, Galvis continued, "From a dollar standpoint we are talking about 100 million dollars investment, between infrastructure and people. But the most important part is not about that, it is the ripple effect we will create in the ecosystem, with the university, with the governments and with the startups.

"For every person there will be many working in internship programs, in development programs that we will be able to enable for the local economy and that is where we care the most," he continued

Microsoft Corp is currently responsible for six development hubs across the globe.

Freshworks takes over Natero, Inc.

ENGAGEMENT SOFTWARE COMPANY Freshworks has announced it has acquired Natero, Inc – a customer success management software company. Through this acquisition, Fresgworks will be able to put auctionable data in the hands of customer success professionals, allowing the company to better predict and prevent customer churn and manage more customers with fewer resources.

Further, through the use of Natero's customer analysis software Freshworks will be able to gain a holistic view of customers, including health scores, which will allow the company to better grow its customer base. This software will also allow the company to keep customer success teams organised, allowing users to manage customerrelated activities such as alerts, workflows and tasks.

Users can also identify behavioural trends and discover customer insights without the assistance of analysts and developers, saving money and hassle.

On the topic, Craig Soules, founder and CEO of Natero, said, "We share Freshworks' passion and commitment to providing an unrivaled customer experience."

He continued, "We are excited to join the growing Freshworks global team as we help businesses acquire and keep customers for life."

This acquisition comes after the company's New Rules of Customer Engagement report found 56 per cent of consumers would consider switching brands as a result of just one bad service experience.

"Customer engagement should not stop with just marketing, sales and support. Today, every business needs to invest in proactively managing customers. The addition of the Natero Customer Success Suite enables businesses to understand their customers better, offer personalized and differentiated service and turn them into passionate advocates and customers for life," said Girish Mathrubootham, CEO of Freshworks.

"The acquisition extends our 'customer-for-life' vision to all teams, including account and customer success managers who require up-todate customer usage and health data to proactively engage those accounts at risk of churn or ready to buy more," he continued.

World Bank grants credit to improve Kenyan reforms

THE WORLD BANK Board of Directors has approved a \$750 million International Development (IDA) credit to support the Government of Kenya's 'Big Four' agenda, which prioritises agriculture, housing, universal health coverage and manufacturing across the region.

Through this credit, the government aims to enhance inclusive growth, accelerate poverty reduction and achieve its Vision 2030 objective of becoming a middle-income industrialised country.

In agriculture, the Kenya Inclusive Growth and Fiscal Management Development Policy Financing facility will support critical reforms that will enhance competition and market transparency, reduce corruption opportunities, and help Kenyan farmers to achieve higher productivity and to increase their incomes.

This credit aims to support the advancement of digitalisation through the creation of the national digital ID, as well as pushing the access of internet services across the region in order to enhance service delivery by the government to Kenyan citizens.

In terms of housing, the IDA credit will help lower construction costs, thus increasing the supply of less expensive housing units. As a result, this will unlock the availability of longer term home loans and speed up the development of Kenya's housing market, which is expected to triple the number of households in the region with access to a mortgage.

"Measures supported by this operation are expected to benefit ordinary Kenyans through better targeting of agricultural subsidies to reach low income farmers, prosecuting those who engage in fraudulent procurement practices, increasing availability of affordable housing, and improving revenue mobilization. This operation creates a foundation for essential reforms for fighting corruption, liberalising markets, and enhancing inclusive growth." said Felipe Jaramillo, World Bank country director for Kenya.

Kenya is one of the fastest growing economies in sub Saharan Africa over the past decade.



IoT focus for ChipFox

CHIPFOX-SA HAS EXTENDED its partnership with Sigfox in an attempt to become the to go-to solution provider for livestock tracking across South Africa.

The company provides users with a portable electronic device which provides farms and enclosures with a range of apps in order to monitor animals such as cattle, rhino and birds.

On the topic, Phathizwe Malinga, MD of SqwidNet (the Sigfox operator in South Africa), said, "At SqwidNet we drive innovation through IoT and have seen the tangible results that this technology can yield."

"Through IoT, companies can solve industry-specific challenges and manage their assets more effectively. In this particular instance, IoT is being used by companies for tracking livestock and wild animals," Malinga continued.

Connectivity is shaping the people and our digital economy in Africa. One trend we are seeing is the strategic investments by a number of African countries towards becoming regional hubs. We have seen that happen in South Africa, Kenya and Nigeria, but other countries are now shifting their focus, with strong inroads being made – just look at Angola, Cameroon, Ethiopia and Ghana. Many are realising that their time is now."



- Ben Roberts Group chief technology and innovation officer Liquid Telecom

Governments and enterprises across Africa need an integrated approach to complex threat detection and response as they fight cybercriminals who have significant financial resources and are constantly looking to exploit any vulnerability."



- Eugene Kaspersky Chief executive officer Kaspersky Lab

Worldwide demand for mobile broadband connectivity has grown exponentially in recent years and we expect this trend to continue. This next phase in the evolution of our GX network provides a dynamic and powerful answer to the challenges created by this growth in demand, building on the strong foundations we have already established."



- Rupert Pearce Chief executive officer Inmarsat

 Never has there been a more powerful moment in history – nor a more digitally-capable generation – to leapfrog Africa's agri-food sector from a net importer of food to feeding the planet."

- Strive Masiyiwa

Founder and group chairman **Econet**

It is ridiculous that the government would consider shutting down social media communications for the entire country after failing in its duty to secure the content of exam papers. They should instead explore ways to secure the integrity of the exams without resorting to regressive measures that would curtail access to information and freedom of expression."



- Seif Magango Deputy regional director for East Africa, the Horn and the Great Lakes Amnesty International

AGENDA

MainOne drives for digitalisation in Lagos

MAINONE HAS LAUNCHED the 'Digital Lagos: Broadband' campaign initiative', committing N25 bn (US\$1.7 bn) to furthering the impacts of digital development across the state.

Speaking at the campaign launch in Lagos, MainOne's CEO Funke Opeke said the company is eager to collaborate with the Lagos State Government, as well as all other relevant stakeholders, in order to help citizens learn the benefits of digitalisation. Further, this collboration will focus on factors including sustainable economic, growth, modernised MainOne CEO Funke Opeke (centre) attended a cocktail education, health and improved quality of life in reception for the campaign. the region.



"MainOne is pleased to have the opportunity to present its plan for Digital Lagos - a proven path to ubiquitous broadband connectivity. This plan will involve the investment by MainOne of over N25 bn over the next two-to-three years to develop critical fiber optic infrastructure to enable broadband services across Lagos state," she said.

Opeke also pointed out MainOne's role in investing in critical internet-enabling infrastructure across West Africa, Nigeria and Lagos, with the company investing more than N120 bn (US\$8.1 bn) on expanding and densifying fibre networks in neighbouring Ogun and Edo States, and deploying almost 1,000 km of fibre across the region, in partnership with Facebook.

According to Opeke, the company's network in Lagos hopes to provide connectivity to state institutions, covering more than 300 government agencies and up to 10,000 CCTV locations across the region, as well as telecom operators and ISPs, public Wi-Fi hotspots, smart city components and IOT devices, in addition to enterprises and other connectivity-based institutions.

This campaign echos the words of Lagos' Governor-elect Babajide Sanwo-Olu, who maintained, "Technology will improve the rule of law, education, ease of doing business and government processes of Lagos.

First Digital Women's Day in Africa unveiled

IN LIGHT OF its seventh edition in Paris, Dakar is set to host the first edition of Digital Women's Day in Africa on 13-14 June.

Keeping with the theme of 'Women: World Changers' the event hopes to shine a light on the prioneering women working to revolutionise the world through digital technology.

"Our country has great ambition when it comes to strengthening and developing ICT and creating a sustainable digital economy, which we support through a multitude of initiatives like the project 'Dakar Digital City'," explained Soham El Wardini Mayor of Dakar.

One of the highlights of the event is the Margaret Awards, named in tribute to former NASA computer scientist Margaret Hamilton, who worked to accomplish mankind's first triumphant steps on the moon. In celebration of the event's African debut, the award will be given to Arielle Kitiko, founder of Caysti; while the Margaret of Honour will be awarded to founder of AppsTech, Rebecca Enonchong. Both African entrepreneurs will receive a congratulations from N'deye Tické Ndiaye Diop, the Senegalese minister

or communications and the digital economy, as well as Babacar Kane, general manager for IBM Senegal and West African states.

Speakers for the day include a range of esteemed female entrepreneurs and leaders in the digital world, including Yacine Barro-Bourgault, country manager for West and Central Africa at Microsoft: Diana Brondel, founder of Xaalys; Virginie Dias-Tangon, human resources director for the L'Oréal Group in Africa: Nafissatou Diouf, founder of SenVitale; Momar Nguer, president of marketing and services at Total: and Afua OSEI. co-founder of She Leads Africa.

"Because the internet has no borders, we need to build bridges between continents, between these women entrepreneurs who are changing the world. We need to do this not only in Europe, but in Africa, which has the world's highest number of women entrepreneurs," said Delphine Remy-Boutang, CEO of the bureau and co-founder of Digital Women's Day.

"We believe in the power of collective strength in overcoming the challenge of better representation for women"

Former Miscosoft executive named CEO of Genesys

CUSTOMER EXPERIENCE HUB Genesys has announced Tony Bates as its new chief executive officer, effective immediately.

Bates has decades of experience and success steering business-tobusiness and business-to-consumer companies through industry transitions and rapid scaling. This includes leading Cisco's Service Provider business and growing its Enterprise and Commercial division to more than US\$20 bn in annual revenue. As CEO of Skype, Bates expanded the business to over 170 million connected users. Once Skype was acquired by Microsoft, Bates became president responsible for unified communications before serving as executive vice president of business development and developers. In addition to his role at Genesys, Bates will continue his appointments on the board of directors at both VMWare and eBay.

Speaking of his new role, Bates said, "The opportunity to lead Genesys at this pivotal moment is truly an honour."

"With its next-generation cloud business growing 85 per cent year over year and rapid injection of AI throughout its customer experience platform, Paul and Tom have done an incredible job building Genesys into a market leader with a remarkable customer base. Especially noteworthy is its PureCloud offer, which is one of the fastest growing SaaS businesses ever, on par with high-growth companies like Zoom.1 The immense opportunity ahead of us is clear, and I intend to ensure that we capitalize on it," he continued.

Bates success Paul Serge, who will continue at the company as chairman. "In my 12 years as CEO, I've had the privilege of working with the best team in the industry," began Serge.

We have repeatedly disrupted the market, most recently with our cloud and artificial intelligence (AI) innovations, and I couldn't be more thrilled to step into a new role as chairman at this high point in the company's history and welcome our new CEO at a time when there's so much opportunity for Genesys," he continued.

Going digital with SES

THE IVORY COAST'S public broadcasting company, the Société Ivoirienne de Télédiffusion (SIDT) has paired with satellite operator SES in an attempt to meet the country's 2020 deadline for switching over from analogue to digital broadcasting.

As a result of this partnership, 60 analogue channels will be broadcast with brighter, shaper resolution and better sound, via the copmany's 4-satellite.

"SES has provided us with an innovative solution to ensure deployment of digital TV by broadcasting multiplexes across the country. This is an important milestone as we are now one step closer to ending analogue service," said Yeo Adama, GM of the SIDT. "We are excited to work with SES, which has the technical capabilities and experience required to support our projects," he continued.

Guinea posts data to improve transparency

TAKING HEED OF IMF's Enhanced **General Data Dissemination System** (e-GDDs), Equatorial Guinea has published data through the National Summary Data Page (NDSP).

This page aims to serve as a one-stop publication vehicle for essential economic data on a series of sectors, including national accounts, government operations and debt, and the balance of payments, as well as aspects of the monetary and financial sector to support data transparency and create synergies between data dissemination and surveillance.

The NDSP has been posted on the National Statistics Office, and is accessible the IMF's on **Dissemination Standards Bulletin** Board. "I am confident that Equatorial Guinea will benefit from using the e-GDDS as a framework for further development of its statistical system," said Louis Marc Ducharme, director of the IMF's Statistics Department.

Facebook's Lagos hub celebrates first birthday

HAS

FACBOOK

CELEBRATED one year of widely sucessful its NG_Hub in Lagos.

Opened on May 22, 2018, the centre has been responsible for training users across Nigeria in digital skills, reaching a series of digital milestones for the company along the way. During its 365-day Businesses helped by NG_Hub. lifespan, the company



trained 18,043 through its 'Boost Your Business' platform. Facebook also trained more than 50,800 SMBs across 20 states in Nigeria, and created 35 jobs in the region.

"I'm proud of the incredible impact that NG_Hub has had in its first year, and continues to have on the lives of young Nigerians," said Adora Ikense, head of public policy for Facebook in West and Central Africa.

"We remain committed in deepening our engagement, increasing skills development and supporting the next set of innovators, tech entrepreneurs, start-ups, in our collective bid to change the face of technology and grow the economy," they continued.

Facebook's NG_Hub has also been responsible for delivering a total of 526 events across the year,

with more than 11,490 attendees taking part in AR/VR meetups, the FbStart Accelerator Programme, Facebook Community Leaders Community meetings (CLCs) and Developer Circle gatherings, to name a few.

As outlined in an infographic created by Facebook to mark the centre's progress over the past year,

NG_Hub has been directly involved in supporting businesses in 11 different industries. From these 29 per cent of businesses were fashion-based, followed by content creators and journalism (13 per cent), digital marketing (9 per cent), catering services (9 per cent), ICT (8 per cent) and education (7 per cent).

On the topic, Bosun Tijani, CEO of CcHub, said, "We are glad about the tremendous impact Facebook's investment in NG_HUB has had in such a short period and the ecosystem is already seeing the fruits of this commitment.

"We're committed to working with Facebook to position NG_HUB as a major platform that drives smart application of technology innovation for economic prosperity across the region and beyond," he continued.

Wari brings financing to WhatsApp

CAPITALISING ON THE global success of WhatsApp, digital financial platform Wari has undertaken a range of strategic partnerships in order to enable customers to request financial services through their smartphones.

Via the WhatsApp Business solution, customers will be able to top up a Wari account, with which they can top up their Kabirou Mbodje, CEO of Wari.

balances, send and receive money. They will also be able to purchase airtime and pay their bills, irrespective of where they are in the world.

The service is available in five different languages (English, French, Spanish, Italian and Portuguese), with plans to launch the platform in Arabic and Russian in the near-future.

As a result of this platform, the company hopes to improve its social integration on an international scale.

"This new partnership with WhatsApp further confirms our strategic goal of ensuring our key services are accessible to the masses through a digital evolution," said Kabirou Mbodje, CEO of Wari.

"We have been working for several months to globalise our platform through strategic acquisitions and partnerships on all continents. We are always aiming to create a standard to interconnect people in all countries and to make financial inclusion a reality, thus building tomorrow's world," he continued.

WhatsApp is used by more than 1bn people across 180 countries, while Wari has 500,000 direct points of service and partners worldwide, including 45,000 in Africa.

ARB Apex Bank continues inclusive banking push

BANKING SOFTWARE COMPANY Temenos has announced ARB Apex Bank has renewed its contract with the company to continue its mission to provide banking and non-banking services across Ghana's Rural and Community Banks (RCBs) and their customers, spanning over 35 countries across Africa.

As a result of this its use of Temenos Infinity - a core banking system - as well as Temenos Payment Hub, ARB Apex Bank has been able to serve more than six million customers across almost seven million accounts, processing an average of 220,000 daily transactions and empowering Ghanaians with modern financial services.

"It is our desire to use technology-enabled products to support our member banks in becoming customer-centric organisations with innovative, value-added services for their customers. With Temenos banking software, we gain operational efficiencies and we can offer seamless and compelling banking experiences," said Kojo Mattah, managing director of ARB Apex Bank.

"We want our customers to feel confident and proud to walk into the banking halls of our RCBs and receive outstanding services."

Likewise, Jean-Paul Mergeai, managing director for Temenos' Middle East and Africa chain, said, "I am delighted to announce the continuation of our longstanding relationship with ARB Apex Bank. We have worked together for almost 10 years now and we look forward to extending our relationship. Temenos' cloud-native and functionally rich offering which is tailored for the needs of inclusive banking will help the bank towards its vision of increasing customer satisfaction and offering access to financial services to the broader population."

ARB Apex Bank first joined forces with Temenos in October 2009, nine years after the company's inception in Ghana. During its lifespan the bank has gained a reputation as the 'mini' central bank for Ghana's rural and community banks (RCBs).



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JUNE/JU	N		
10	Tech in Ghana Conference	London, UK	www.techinghanaconference.com
10-11	Legal Innovation & Tech Fest	Johannesburg, South Africa	www.techfestconf.com/legal/sa
10-14	London Tech Week	London, UK	www.londontechweek.com
JULY/JUI	LLET		
9-11	FDT Africa	Midrand, South Africa	www.fdt-africa.com
10-11	West Africa Com	Dakar, Senegal	www.10times.com
AUGUST//	NOÛT		
20-22	10th Africa Peering and Interconnection Forum	Port Louis, Mauritius	www.afpif.org
29-30	SHIFT	Turku, Finland	www.theshift.fi
SEPTEMB	ER/SEPTEMBRE		
1-4	Nigeria Com	Lagos, Nigeria	www.tmt.knect365.com/nigeria-com
24-25	Telecoms World Middle East	Dubai, UAE	www.terrapinn.com/
OCTOBER	/OCTOBRE		
11-13	HackConf	Sofia, Bulgaria	www.hackconf.bg/en
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Nigeria Com 2019 to revamp Africa's digital framework

NIGERIA COM IS going to take place at the Oriental Hotel in Lagos from 11-12 September, aimed at strengthening the networks and ICT of digital Nigeria.

Nigeria Com 2019 aims to define the best practice for the whole Telco value chain to leverage its assets, bringing low cost connectivity and enhanced digital services to the people. The event is planning to host the ICT Leadership Forum where industry leaders will advise how to maximise new technology platforms to capture market share.

The event will present extensive sessions on topics like internet of things (IoT), artificial intelligence (AI) and blockchain for enterprise markets and discuss on the regulatory frameworks for the spreading of digital environment in the African market.

The 2019 agenda includes public and private collaboration for a broadband plan in Nigeria; overcoming power, accessibility and infrastructure challenges; 5G as an economic enabler to connecting the unconnected; agile telecoms amid rapid digital transformation; Nigerian tech innovation on a global stage; Nigeria's pathway to Industry 4.0; vibrant and sustainable digital broadcasting services; tooling start-ups to drive digital transformation; an introduction to Nigeria's investors; mobile payments and billing; scaling up of the fintech ecosystem; and the digital revolution in agriculture and healthcare.



The two-day event will be attended by the industry leaders, decision makers, service providers and stakeholders of the market. The event will further host presentations from major CEOs on practical case studies on the major themes of networks, digital services and customer experience.

The event aims to provide a platform for the companies to exhibit their and showcase their products and solutions, allowing them to reach to the region's decision makers for better business opportunities. In addition, the companies can also provide flexible and tailored solutions to optimise the investment in African market.

Exhibitor profiles include Amos Spacecom, Avanti, Global Communications, ITC – She Trades, ManageEngine, PortaOne, Papersoft, PICIORGROS, WIOCC and others.

The event is further set to also provide opportunities for the participants to network, as it will host interactive features such as CIO hosted lunch tables, speed networking and facilitated one-to-one meetings, ensuring that the participating companies are personally introduced to all of their crucial targets, developing connections and establishing their brand in the region.



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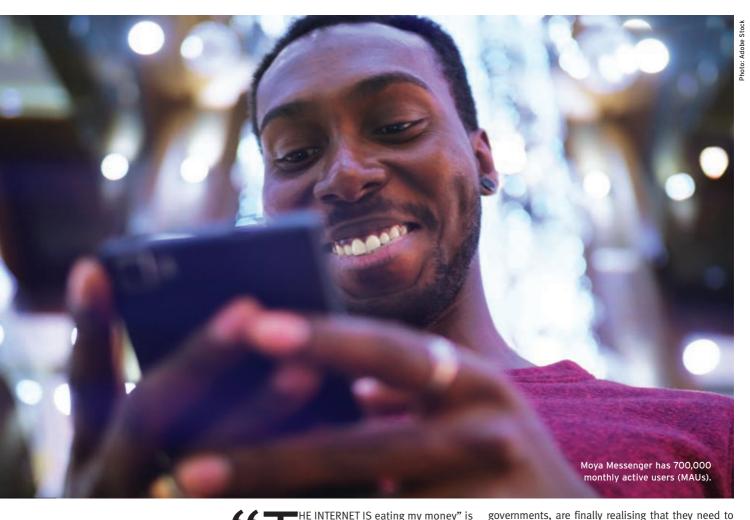


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#datafree comes of age with Moya Messenger leading the way

With data prices remaining high across most of the continent, Stephen Newton, CEO of #datafree pioneer biNu, discusses how the Moya messenger app is demonstrating the power of #datafree and challenging WhatsApp at the same time.



Moya has adapted the WeChat model for Africa. a phrase you hear constantly across Africa. The continuing high price of data in relation to the average African's income means that most people aren't able to fully benefit from the digital economy, so they are often missing out on the extraordinary wealth of information available; the ability to view and apply for work; the ability to engage with companies and brand offerings online, the potential to learn and educate oneself, even the ability to participate in Africa's great success story

– mobile money.

This is also a problem for companies and brands that want to reach people through their mobiles – to inform, educate and communicate with them.

'Build it, advertise it and they will come' simply doesn't apply in Africa. Organisations in both the commercial and not-for-profit sector, as well as governments, are finally realising that they need to lower barriers and make it easy for people to engage with them online, and this is where reverse billing and biNu's #datafree model comes in.

Moya Messenger - demonstrating the power of #datafree

biNu has developed its own b2c app to prove its #datafree model, a route that has proven to be successful. The Moya Messenger app is similar to WhatsApp, except messages are #datafree. It has grown virally without any marketing spend and currently has 700,000 monthly active users (MAUs) in South Africa and more than 350,000 daily active users.

In addition to offering free Peer2Peer and Group Chat, Moya includes a feature called 'Discover'. Discover provides the mobile user with access to a growing range of digital content and services

Data

provided by the companies and brands who create a #datafree application with us. This enables the mobile consumer to engage with #datafree applications as well as use messenging services in one place, and gives the companies and brands who own these applications significant reach and engagement into a fast growing user base. In effect, Moya has adapted the WeChat model for Africa.

Engagement is very high, because it's datafree. I'll give an example: we inserted a questionnaire and received more than 12,000 responses in three days without even advertising the questionnaire or offering a prize. We simply placed it within Discover and our users chose to engage and complete the questionnaire.

The idea behind creating Moya

We did some surveys across South Africa to find out how people feel about downloading applications and their use of mobile data.

More than 90 per cent of respondents said they only had between one and five apps on their phone with the majority having just three. WhatsApp was the most popular app followed by Sharelt and Facebook Lite, not even 'Facebook'.

People gave three reasons as to why they only had a few apps on their phones:

- It costs data to download an app. So in order for them to download an app, they have to actually think to themselves, do they really want to spend their money on this?
- They have a fear that when they download our app it will use their data in the background, so it's costing them money just to have my app even when they are not actively using it.
- They don't have enough space. They now have to determine what to delete from the phone to download our app.

So we realised two things: people love messaging and they don't want to download apps that will eat their data. So, in South Africa and Nigeria, where we have relationships with



Stephen Newton, CEO of Moya.

mobile networks, users on those networks that download Moya, can message peer-topeer #datafree.

The #datafree model

Moya Messenger has been built using biNu's unique technology platform which can be used by any organisation to run #datafree apps and websites that mobile users can access for no data costs.

The easiest way to understand #datafree is to think of o8oo toll-free calls – most people are familiar and comfortable with a company or

Moya Messenger has been built using biNu's unique technology platform which can be used by any organisation to run #datafree apps. brand paying for the cost of a telephone call from their clients or prospective clients. biNu does the same thing but for websites and for mobile applications.

Our reverse billing approach is both the least and the most disruptive for mobile network operators (MNOs), companies, brands – and consumers.

biNu partners with MNOs to zero rate (reverse bill is another term) a website or app. MNOs are very receptive to our model because we present a new revenue source as they are paid for their data. However, we are MNO agnostic as we want everyone no matter which network they're on to be able to access #datafree content.

We then offer our #datafree service to companies and brands enabling them to completely lower the data cost barrier that often stands in the way of them reaching their target audience - customers, prospects, employees, and partners etc. The company or brand pays for the mobile customer's use of data on the company's website or application, often supporting this from their already existing marketing, communications and/or client acquisition budgets. We offer the company or brand a way to do this in a controlled fashion while offering them detailed insights on user behaviour. That's a very solid proposition that can be easily tested. The mobile consumer is the biggest winner as they can now engage with the online touchpoints of companies and brands without worrying about their data balances. Even if they have zero airtime, they can still access a zero-rated website or application.

What are your plans for the immediate future?

We're raising funds for a more aggressive growth expansion plan looking at any market where they have predominantly a pay-as-yougo population that is data-price sensitive. We are still a start-up but we have a unique offering: we can make any digital touch point, any website; any application data-free and therefore accessible to everybody. *C*



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Wentzel: "Digital transformation will leap frog Africa's growth"

John Wentzel, group chief commercial officer for Tsebo discusses the technological steps Africa needs to take in order to further develop its role in the digital world.

HILE MANY MAY think that Africa's development is far off, I can categorically confirm that the time for Africa is now. Although the continent may still experience major developmental challenges, such as slow advancement in infrastructure, capacity and skills, there are a number of solutions that are fast pushing the African continent into the global economy.

That is why at Tsebo, we have taken a firm decision to expand across Africa and the Middle East, with our new business in Egypt being the latest addition to our footprint that spans across 28 countries. We are optimistic about Africa's opportunities, but we do recognise its challenges and we are able to navigate them if we cannot solve them. The only way we can resiliently grow the continent and grow with it as multinational businesses is to build solid partnerships that will enable us to actively invest in people, combat digital poverty and catalyse easy access to information.

More than 20 percent of the world's population is in Africa and just over 70 percent of Africans work in the agriculture sector. With that in mind, using the agricultural industry as an example, national governments and African firms produce little by themselves, hence leaving land and capital available to external actors. Why is this the case when other developed countries in the world are able to successfully leverage the sector as an economic growth driver? This means Africans cannot even solve the continent's problems around hunger and food nutrition within their own environments, yet they sit with so much land at their disposal. What may be missing, in this scenario, is education and skills to develop the industry as well as technology to yield much higher agricultural productivity.

What do Africans need in order to turn the tide and reap the rewards of their own land? It starts with Investment in human capital and key to this investment is education and skills development. We need to put in proper effort in using technology to provide Africans with information. Digital transformation should be at the heart of the continents development as it has the ability to provide connections of economic activity beyond traditional infrastructure such as roads and bandwidth restrictions.

Recently, I attended the Africa CEO Forum, an event which seeks to find future solutions for the benefit of the continent's development by bringing together governments and industry captains to engage on what is possible and at this year's meeting, digital transformation was a topic in which many were interested and dominated the conversations in some of the sessions and hallways.

As part of the panel that spoke on the subject, we debated how the digital world is transforming the way business is done in Africa. At Tsebo, we fully embrace the increasing role that digital plays in doing business in Africa. We pride ourselves by using digital as an enabler of improved customer experience through training. By making our training primarily available through digital methods and making the modules available on cellphone platforms we can reach more than 40 000 people quickly, easily and at their convenience. We are now able to ensure consistency of service delivery across 28 countries covering staff in thousands of sites. There is just no other way we could do this.

We have used technology to enable our staff to better perform their jobs and deliver outstanding results for our customers.

This gathering of business and government leaders who have shown bench strength in taking economies to the next level was hosted by a country that is championing the acceleration of innovation and digital transformation across the continent. As Rwanda commemorates 25 years since the genocide in 1994, we all need to be inspired by the leadership of the country and its ability to find refuge in a digitised economy.

The only way we can resilliently grow the content is to build solid parrtnerships that will enable us to combat digital poverty and catalyse easy access to information.



John Wentzel, group chief commercial officer for Tsebo.

The World Bank forecasts growth of 3.4 per cent in 2019 in Sub-Saharan Africa. This provides a window of opportunity for businesses to strengthen trade relationships with counterparts on the continent to build sustainable growth. As an African business, we saw the need to focus on harnessing the power of doing business on the continent and using technology to give us momentum in finding growth opportunities.

Technology will continue being the backbone of a successful business. In a fastmoving environment, technology is required to help connect the business to its people and the outside world, optimise systems and processes as well as enhance products and services. As part of our growth strategy, we are looking at how human interaction can work together with technology to provide staff with tools to sell Tsebo products and services as well as embrace Artificial Intelligence (AI) to simplify activities.

The fourth industrial revolution is here and with the aid of digital transformation Africa is not being left behind. $\ensuremath{\mathfrak{C}}$

Financial services and the cloud: what's the next big challenge?

Felix Antonysamy, head of business development for financial services at Wipro Limited explores the innovations and challenges at the crooks of the finance sector's flourishing relationship with on-demand data centres.

N A SOUTH African context, financial services companies have been slow in adoption of cloud services. However, the last year or two has seen a significant shift in this mindset, with all South African banks steadily moving their infrastructure to the cloud.

It is all about reducing costs and increasing efficiency, as well as improving business agility and enhancing customer experience, as financial services companies have been struggling to keep up with the rapid advance of technology across the industry, while at the same time seeing FinTech organisations eating into their business.

Globally, most banks have either completed or are currently undertaking digital а transformation journey, driven mainly by changing customer expectations and the need to do things differently. This is where cloud technology is imperative for banks, which need to manage large amounts of data.

All the traditional banks in South Africa currently have strategies to move to the cloud, with a few choosing to follow the public cloud route, while the majority are adopting a hybrid cloud strategy. However, each approach brings with it its own challenges and benefits.

Weighing up the options

The hybrid cloud approach allows banks to move some of their applications to the cloud, while keeping control of the core of their data, which is important in terms of security and data sovereignty.

This strategy increases the cost of migration and thus requires a longer timeframe, becoming a one- or two-year journey.

This is because of the amount of work that needs to be done, as well as the need to acquire skills to manage data in a hybrid cloud environment. Cloud technology skills are evolving in South Africa, however, finding skills coupled with the requisite experience can still be challenging.

On the other hand, the challenge of adopting a pubic cloud strategy means that a bank runs the risk of cloud service provider lock-in. Banks understand that they don't want to be locked into one vendor, so most of them are looking at a multi-cloud approach and need to talk to various partners to develop an effective migration strategy that will facilitate the integration of various solutions.

A major factor that has slowed the adoption of cloud services financial services among companies has been the big concern around security risks. So, while public cloud is the endgame, most banks are adopting a hybrid cloud strategy for now in order to mitigate security risks.

However, it must be noted that, for the large part, the perception around security risks has been greater that the actual risks themselves: and at the end of the day, it's all about mitigating risks and accepting that security breaches happen.

It comes down to organisations knowing what security protocols are in place and how their data is being protected. In most cases,

Financial services companies have been struggling to keep up with the rapid advance of technology across the industry.



the core of their data in order to reduce security risks.

they should rely on third party security solutions providers to develop an effective strategy.

Managing migration

Compliance with how data must be stored and handled has also had a strong influence on the pace of cloud services adoption within the financial services sector. However, the global bodies, as well as the South African Reserve Bank, have recently shifted their position in terms of cloud technology, acknowledging that this is the way forward. It is expected that clarity around compliance for South African companies will come from the Reserve Bank in the near future.

Naturally, there are costs associated with migration to the cloud and these can initially be greater when adopting a hybrid cloud approach, as it involves running two sets of technology, which produces parallel costs. However, in the long run, adopting a hybrid cloud strategy does provide great cost efficiency and

increased business agility.

Also, there are greater costs involved if an organisation wants to migrate its legacy systems to the cloud. These are often disparate systems that need to be rehosted and re-platformed so that they can be cloud-ready.

In terms of actual migration, teaming up with an IT partner is definitely the way to go. Banks cannot do this by themselves. A partner will be able to provide the skills, cost model and tools that will ultimately reduce the costs of migration. Furthermore. an experienced partner can also provide the required compliance standards and processes for moving to the cloud.

Lastly, banks must keep in mind that the culture and mindset of an organisation is a very important element in cloud adoption. The leadership of an organisation must make sure that there is buy-in from the business team for successful migration, as it comes with lot of changes that will impact organisational culture. Ø

Power quality in one complete package

FG Wilson partnered with Master Power Technologies to provide critical power solutions to data centres across Africa.



Master Power Technologies has now more than 200 employees and coverage right across sub-Saharan Africa. WENTY YEARS AGO, we were queuing at fax machines, posting handwritten letters and finding our way through a torrent of floppy disks. Today, though, the picture has changed dramatically as we now have instant access to information and the ability to communicate globally from virtually anywhere and on any device.

In 1999, Menno Parsons was working in the UPS division of a pioneering German electronics company, watching the birth of the internet. He could clearly see the growing need for stable, high quality electric power solutions for businesses, which were becoming dependent on IT and fast-paced communications. Putting his thoughts into action, that year Parsons decided to strike out and form his own business, Master Guard (Pty) Ltd. At first, the focus was on static UPS (Uninterruptable Power Supply) products, usually for customers in telecommunications, banking and industry.

Soon, however, the product range began to grow. Parsons recalls, "Back then, the elements of a power system often came from many different suppliers and this made it difficult for customers to make the right decisions. Also, because the different components of power systems were all integrated, if something went wrong, customers often needed to call out suppliers of all the components to resolve one problem. Generator sets and UPS systems all work in tandem, so we started offering them as one integrated, fully supported system."

From there, it was a short step towards offering changeover control panels. These were combined with distribution boards that switch from the utility supply to the generators when power goes down and in reverse when utility power is restored. Five years later in 2004, Parsons saw the boom in data centres. What was fast becoming clear was that the traditional planning model for a data centre, now sometimes called the snowflake model, had no chance of keeping pace with rapid growth in internet traffic.

His solution (now commonplace, but then revolutionary) was a modular data centre, where servers and cooling systems are held in containers. When more capacity is needed, it's as simple as bringing in more modular containers. Now Master Power Technologies offers a complete turnkey data centre package: energy and hardware with rapid deployment – but there was something else.

FG Wilson generator sets are a perfect match for customers who have critical power needs.

Parsons says, "When you're managing a data centre, or any critical environment, you want near zero risk of downtime, which means rapid service for hardware and power systems. That means close monitoring and predictive maintenance by people who are complete specialists in all aspects of the operation. Issues need to be resolved well before they become problems."

So, in 2007, Parsons opened the Life.NET remote monitoring centre which gave the business the ability to monitor critical equipment and the entire data centre environment. This meant high efficiency was maintained for customers at lower costs than hiring their own internal specialists. Similarly, it meant technicians were often onsite before anyone at the data centre was even aware there was a potential problem. The data centre operators could now focus on their business without needing to troubleshoot on operational issues.



By 2014, it was time to find a strong brand of generator sets with a reputation for reliability. Coincidentally, at the same time FG Wilson, who have been making generators for more than 50 years, was looking for a strong partner to add value to their brand. To sell and support the FG Wilson range of generator sets, Master Power Technologies established a new Blue and White Division covering South Africa, Namibia, Botswana, Zambia and Mozambique.

"FG Wilson generator sets are a perfect match for customers who have critical power needs. The products are reliable, tested and supported by a world class parts and service infrastructure. It's a brand which has a long track record," he says.

Photo: FG Wilsor



An FG Wilson Generator Set powered by a Perkins 4000 Series engine.

That track record is more than 640,000 generator sets sold since 1990 alone. It is a relationship that works well for both: FG Wilson's staff are masters at simplifying complexity and for any project, while Master Power Technologies can count on a team of 300 engineering specialists at FG Wilson's main UK facility to support with generator set design and project management. Combined with Master Power Technologies' world class remote monitoring and support capability, it's a comprehensive package.

But Parsons hasn't stopped for breath. Over the past 20 years, Parsons has grown Master Power Technologies into the leading South African business it is today – specialising in quality backup power solutions and resilient modular data centre solutions.

With a staff compliment in excess of 200 employees, Parsons and his team of experts service the largest businesses in sub-Saharan Africa, across diverse vertical sectors including banking, mining and telecommunications.

Innovation, quality and service are at the core of Master Power Technologies' values, which Parsons has instilled in his business. This is indicative of the organisation's credible track record and business relationships across Africa.

Master Power Technologies' African footprint includes fully-fledged operations in Zambia and Kenya, which allows for increased efficiencies and enhanced service delivery to other parts of the continent. *©*

For more information about Master Power Technologies visit kva.co.za or FG Wilson at www.fgwilson.com.

Enabling cities to become better connected

Dietrich Brunner, global sales manager Insurance Industry at Bosch Connected Devices and Solutions explains why sensor-based devices are at the centre of the development of smart cities in Africa.



What is Bosch Connected Devices and Solutions' (BCDS) strategy this year in the Middle East and Africa? Can you name the markets in which you have an active presence?

Our team brings to market major competencies in a multitude of fields: Internet of Things (IoT), Industry 4.o, Connected Logistics and Connected Mobility. IoT technology is a central focus of many of our offerings, whether it is smart cities or connected vehicles. Connectivity also plays a central role in the factory of the future. Connecting machines, materials, products, and workers is a prerequisite for increasing productivity and for new services and business models.

BCDS leverages the many years of experience acquired by Bosch in developing and manufacturing sensors for demanding automotive environments and applies it to the Industry 4.0 space. Our customers benefit from 'co-creation' partnerships, working closely with the customer, responding quickly to individual requests to deliver rapid prototyping capability and reduce time to market. We want to expand our activities to the Middle East and Africa to create value (e.g. enabling industry 4.o, logistics or telematics solution providers) with our leading sensor-devices.

What the main innovative solutions/products that are the most popular in the Middle East and Africa, and why?

BCDS has a large portfolio of sensor-devices for all kind of industries. Our biggest customer and partners are, for example, in the manufacturing industry, logistic companies, but also telco-providers and insurance companies. Within connected mobility, we see that customers are very interested in our Telematics Plug (TEP), which enables crashrecognition and can trigger an emergency call. Especially for this region, with its extensive road

We look forward to engaging with customers from the Middle East and Africa region so that we can create more value through joint projects. network, this device and the app can be a lifesaver. Similarly, our Transport-Data-Loggers (TDL) devices enable condition monitoring (e.g. temperature and humidity measurement).

Is there any cross-over between industries such as housing and automobile that benefit from connected devices?

Yes, basically every industry can benefit from our sensor-devices and unlock the potential of industrial IoT and sensor-devices.

How do you envisage the growth of IoT this year as more mobile operators turn to 5G?

5G is an enabler for sure. As the data from our sensors can be transferred faster and in higher volume, this also means more insights and more value. Our message regarding 5G is "we are ready for 5G" as we had a very profound look on the possibilities.

What gives Bosch an advantage over its competitors?

Our outstanding quality, broad competencies and several years of experience in massproduction give us a distinct advantage. With more than seven billion MEMS sensors sold since 1993, Bosch is the market leader in manufacturing sensors for automotive systems and consumer devices. Bosch today manufactures four million sensors a day. Since MEMS sensors are one of the major technologies in digitalisation, we have a head start in the race in the world of IoT. BCDS offers star and mesh communication network topologies, and tailors them perfectly based on the application.

How was the Telematics Conference Middle East & Africa 2019 on 28 March?

It was a great experience, as I could talk about



Dietrich Brunner, global sales manager of Bosch Connected Devices and Solutions.

my early years as a young driver and then create the link to our TEP, highlighting the safety benefits. For example, when I look back, my driving technique included instances of harsh acceleration and abrupt braking, increasing the risk of accidents. For example, this kind of driving behaviour would be pointed out with a telematics solution such as the TEP.

Can you tell us more about the benefits of having the TEP?

The TEP detects relevant information on crashes and their severity level. Additionally, it tracks scoring events such as acceleration, braking, cornering, starting and stopping. Its functionalities present several benefits not just for drivers and emergency services but also fleet management companies, rental services, roadside assistance companies and most importantly the insurance company (e.g. less risk and faster damage processing) and insured persons (better and additional services and tips for safer-driving). The retrofit emergency call service provided by BCDS fits into the car's 12V adapter and acts as a guardian angel, by automatically co-ordinating timely help, in the unfortunate case of an accident. We expect these insights to support behavioural change as customers will have greater insights into their own driving behaviour and the opportunity to act upon it. The TEP transmits acceleration, braking and cornering event data to the driver's smartphone via Bluetooth® and serves as informational help to improve driving performance.

How important is the development of sensor-devices for the development of smart cities in the future?

Very important, as smart cities are only smart when you "connect the things" and for this connection you need smart-devices. For example, our parking-sensors (PLS) are already now enabling cities to become "more connected" and "smarter".

Is there anything else you would like to add? What key message would you like to share? The potential of using sensor-based devices to measure and analyse data is unlimited. We look forward to engaging with customers from the Middle East and Africa region so that we can create more value through joint projects, especially given the region's smart city agenda through a focus on digitisation. ©



Providing a top security data platform in East Africa

The Microsoft cloud delivers a cybersecurity step-change for East Africa's data-sensitive organisations, providing a doorway to high-speed data safety.



IQUID TELECOM KENYA, part of the leading pan-African telecoms group Liquid Telecom, has launched a Microsoft cloud service in East Africa, providing users with an "unequalled level of cybersecurity".

The new Azure Stack service will allow companies to run a private Microsoft cloud within East Africa, rather than at one of Microsoft's 54 public data centres located outside the region. This means users benefit from the cutting-edge security protocols developed and run by Microsoft on its cloud platforms, while holding their data locally, which makes data uploading faster for databases that can be as large as one terabyte or more.

The service is available across East Africa, hosted in private cloud nodes in Kenya and Tanzania, which makes it possible to replicate databases at different locations to increase reliability and flexibility. "The data transmission time to Europe is around 200 milliseconds, and for the closest Microsoft cloud server, in South Africa, 55 milliseconds. But the new Azure Stacks in Nairobi and Dar es Salaam will mean data transfer speeds of less than 20 milliseconds for all users within East Africa," said Winston Ritson, group head of Cloud Services for the Liguid Telecom Group.

This increase in speeds will transform back-ups and uploads from previously lengthy processes to swift data exchanges. Globally, according to Liquid Telecom, companies have reported that this has transformed their operations, with one logistics company in California achieving a 50 per cent improvement in service delivery on increased data speeds.

Using Azure Stack also opens the way to a level of cybersecurity that few organisations have the capacity to develop.

"Microsoft spends some US\$1bn a year on ensuring the

security of its Azure platforms. This is a scale of spend and professional attention that companies cannot match or surpass in securing their data," said Ritson.

This comes as East Africa's data security continues to deteriorate. In 2017, Kenya lost over Sh21bn (US\$207mn) to cybercrime. But the nation's losses are forecast to rise further on new cyber threats, including attacks on built-in Windows IT admin tools, Powershell files and Windows Scripting executables.

"Developing the Azure Stack in East Africa has required intensive development and co-operation between Liquid Telecom and Microsoft," said Adil El Youssefi, CEO East Africa, Liquid Telecom. "However, we believe that in offering a now unequalled level of cybersecurity, it has delivered yet another vital pillar to the economic development of Kenya and East Africa." ©

The new Azure Stacks in Nairobi and Dar es Salaam will mean data transfer speeds of less than 20 milliseconds for all users within East Africa.

Data as a strategic asset

Elena Huff, senior manager, advisory services at EY, discussed how organisations can be liberated by taking control of their data at the Belsim Users' Meeting held in Marseille in April.

IVING A KEYNOTE presentation on 'Data as a Strategic Asset', Huff noted that there have been buzzwords around new technologies such AI and machine learning but stressed "everything starts with good quality data", underlining the importance of validating and reconciling data. "You can't capitalise on these new innovative solutions without that foundation," she said.

Measurement data is key in the oil and gas industry, she stressed. "Trusted production data, converted into robust action, will improve performance in various processes in the oil and gas industry," she said. "For example, you can optimise well production, conduct surveillance of your wells better, know what to do to boost the performance of the well. You can understand the characteristics of the reservoir better and improve your drilling programme. All this leads to more drilling rigs, more producing wells and improving free cash flow."

Raw data must be refined for its value to shine brightly.

However all too often, data is not trustworthy, complete or fully known. It has been estimated that in the USA alone in 2016, US\$3.1 trillion was wasted due to poor quality data. (Thomas C. Redman, Harvard Business Review, 22 September 2016). There are still issues with siloed data and processes; for example multiple versions of raw data inputs may exist in different projects and different user archives. This is particularly the case in the oil and gas industry, where production data owners in the field are far removed from the data consumers at the office. Business users can spend more time searching, cleaning, and assembling data than actually using it for analysis.

"This can be mitigated by the use of powerful enabling technologies such as VALI," she said, referring to Belsim's data validation and reconciliation (DVR) software. "VALI collects data from multiple measuring points and reconciles it, showing you where there are any exceptions, then you are able to make informed decisions based on that. Data tells a story; it shows the systems, paints a picture of where there are issues – but it is up to people to take action on it – for example, making sure that meters are calibrated correctly."

"Validating data from the start is the most efficient way to avoid set-backs, re-engineering



and poor decisions," she added.

Nine-step governance framework

So how can companies empower their data to become a strategic asset in a world that is becoming data driven and technologically disrupted?

Powerful enabling technologies such as VALI need to be combined with appropriate data governance organisation. Huff outlined a nine-step governance framework that requires partnership and collaboration between all functional domains:

- Determine organisational priorities and define scope – for example start with ten or fifteen key data elements such as temperature, pressure etc.
- Invest in change management, which is critical for adoption and sustainability
- Establish data governance organisation demonstrating comprehensive leadership support
- Connect and align teams through a fit-forpurpose data catalogue which needs to be respected by all – define what data elements mean, owners, availability; establish systems of record – enabling the one "source of truth"
- Establish data governance policies to support priorities and the regulatory landscape
- Define the new operating model by transforming policies into new ways of working
- Design enabling technologies to ensure seamless integration of data across systems

 DVR is a good example

- Implement ongoing data quality and availability monitoring – metrics and KPIs to measure performance
- Ensure sustainability via period audits based on defined KPIs.

Organisation change management is often the area that companies struggle with the most, said Huff.

"Change management permeates throughout the entire lifecycle of the data governance framework. I can't emphasise enough how important this is. You can't run an organisation the old way and expect new results! It involves a complete change of mindset and culture. It is not a sprint or even a marathon, it's a complete lifestyle change."

"Be a change advocate," she advised. "Tell your people why treating data as a strategic asset is important for the company and them personally, and how it can help free up time. In the energy space in particular, there is a huge lack of understanding of data lifecycle flow and all the points where data can get compromised, from the point of data capture, to the time when it is actually used. Educate your organisation on the data lifecycle."

"Companies who are at the forefront of taking on this data-centric mindset, focusing on data as a strategic asset, will be the ones to realise their competitive advantage earlier," she stressed. "Those that don't will not survive."

"Data is the oil of the digital era," Huff concluded. "Raw data must be refined for its value to shine brightly. VALI is a great tool to make sure your data is accurate and to highlight the challenges with it, but it needs the proper framework around it," she concluded. @

Off the grid: Vanu tackles the connectivity crisis in rural Africa

Following its agreement with Africa Mobile Networks (AMN), wireless infrastructure manufacturer Vanu is on a mission to create a fully connected Africa, one site at a time.

ITH AMN PLACING orders for more than 3,000 systems over the past two years alone, the pair have successfully provided internet coverage for as many as 1.1 million people across sub-Saharan Africa. However, this development is a mere drop in the ocean, with 1.2 billion people across the globe faced with no connectivity. Endeavouring to resolve this issue, Vanu has opted to serve the market through a series of networks off-grid typically avoided by mobile network operators (MNOs) in favour of improving further the connectivity of urban sites.

Speaking to Communications Afrique, CEO Andy Beard noted the big issue in catering to off-grid networks is the lack of power in these regions – a drawback which leads MNOs to spend a vast amount on operating costs through using diesel generators which, after a matter of months, forces sites to be turned off or neglected by operators.

"We came up with a series of innovations with regards to the network architecture, the site design and the base station itself that allow us to run a site using both solar panels and batteries," Beard said.

"If you compare the expense of that amortising the cost of the solar over the life of the system you get a 95 per cent saving in the operating expenses associated with power, and that ends up

Off-grid networks present a completely different range of challenges for mobile network operators.



making the market a lot more accessible, especially from an operating expense perspective," he continued.

A new approach

Through re-assessing costs across the board, the company has been able to reduce expenses to create sustainable off-grid networks in rural areas across Africa, including Cameroon, the Democratic Republic of Congo, Ghana, Guinea, Rwanda, Madagascar and Mauritania. For example, local call routing (otherwise known as local call switch) allows MNOs to route traffic directly between users in order to significantly save on backhaul (links between the core smaller network and subnetworks). Described by Beard as the "connection between a site and the rest of the world," backhaul ranks as one of the biggest expenses in creating offgrid networks, just below the high cost of running and maintaining diesel generators.

Vanu has also softened the

blow of off-grid networks through the use of software radio technology. "Software radio is a term for implementing in software what historically has been implemented in hardware. Vanu was an early pioneer in this space, taking a very aggressive approach to software radio by implementing a wireless communications base station entirely in software," Beard said. This technology allows the company to adapt a generic platform into a variety of different functions by remotely running and reconfiguring software applications. As a result, workers visiting the site don't need to receive such stringent training as their hardware counterparts, saving both money for MNOs and time on the clock for maintenance staff.

Taking a chance

While traditional network solutions place emphasis on spectral efficiency and capacity (which allows people in urban areas to use a range of communication standards without reducing the quality of service), off-grid networks present a completely different range of challenges for MNOs. Beard explained, "What [Vanu] is really trying to do is cover as many people as possible with a single site who don't already have coverage. That's what we're trying to optimise for. We don't want to cover for people who are already covered because that's redundant, and the existing MNO network is already providing a good level of service."

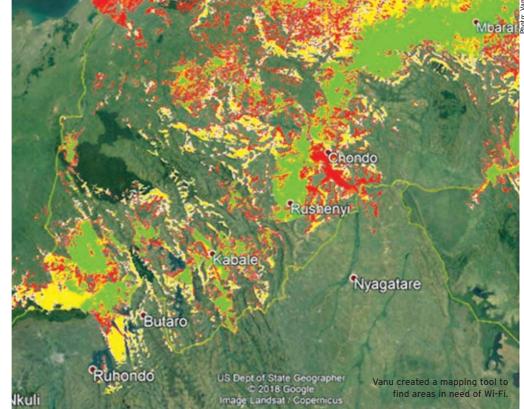
With this in mind, the company created a mapping tool in order to recreate wireless coverage worldwide based on data from topographical and other databases. This allowed Vanu to figure out where there are holes in the region's network coverage which, when overlaid on top of high-resolution databases, can provide a unique insight into which areas are most in need of coverage. However, while Vanu provides this tool as a service for its clients, some MNOs are still skeptical about investing in the development of off-grid networks due to uncertainties in relation to the return on investment (Rol). Therefore, MNOs with a limited capital budget tend to prefer a 'coverage of service' in which Vanu buys the equipment and run the sites themselves, while MNOs' subscribers can use the service in return for part of the operator's revenue.

What [Vanu] is really trying to do is cover as many people as possible within a single site who don't have coverage.

An untapped market

Created in 1998, Vanu began its connectivity ventures as a wireless infrastructure manufacturer with the development of off-grid networks across India, before eventually delving into African soil to improve connectivity across the globe. Endeavouring to become a dominant player in a previously untapped market, Beard hopes to seize both shortand long-term opportunities posed by the continent.

While population growth is sure to play to the company's advantage, it's the short-term impact of Africa's young population which is sure to make a splash in the market, with 41 per cent of the continent's population currently under the age of 15. Beard explained, "Over the next 5-10 years all these people are moving into a demographic that is squarely in our addressable market. These are younger people who are going to want mobile devices, who understand the importance of having a mobile device to be marketable and to be connected with not only their peers but with





business opportunities. It's a place where we can deliver a real Rol to people who need that connectivity to be able to be engaged and competitive in today's workforce.

"It's an outstanding opportunity for us in terms of economic opportunity, but it's also a real opportunity for us to make a very positive impact for people who don't have access to many key services and significantly help economic development in these markets." ©

Broadband

AMOS-17's C-band HTS beams uniquely combine HTS high throughput with C-band high availability to service sub-Saharan Africa.

AMOS-17: An advanced satellite designed for Africa

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AMOS-17 is specifically designed to meet Africa's growing communications needs and is due to launch this summer. Eran Shapiro, director, Business and Technology Ventures at Spacecom, talks to Communications Africa about the opportunities that AMOS-17 offers.

Please tell us more about AMOS-17 and what it means towards improving satellite communications in Africa

Spacecom, operator of the AMOS satellite fleet, is now preparing for this summer's launch and subsequent commercial operations over Africa of our newest satellite: AMOS-17.

satellite will be the The most technologically advanced satellite to service Africa to date. Manufactured for Spacecom by Boeing on its 702MP platform, AMOS-17 will deliver a large variety of services using its state-of-the-art digital payload. Indeed, the satellite will also serve as a bridge connecting Africa, Europe, the Middle East, India, China and other areas in Asia, and as far west as Brazil. We've designed this satellite with considerable flexibility, which will enable us to provide unique value added services to customers. This creates an essential bridge for making more inroads and setting a new digital age in sub-Saharan Africa in which advanced satellite services will be at the centre.

We are looking forward to this and are also very excited by the opportunities to cooperate with African communication providers, governments and broadcasters to help close the digital divide.



Eran Shapiro, director, business and technology ventures, Spacecom

Spacecom has already presold two of the satellite's four steerable Ka-band HTS beams.

What makes AMOS-17 good for providing communication services on the continent?

Working closely with African communication providers and governments to understand their current and future requirements, Spacecom will offer substantial value matching these needs. Taking into account different needs, AMOS-17's design is perfect for many types of communication services throughout Africa, tailored specifically for businesses and governments in sub-Saharan Africa. The satellite will provide extensive C-band High Throughput (HTS), Ka-band and Ku-band coverage. It will be able to combine broad regional beams and high throughput spot beams to maximise throughput and spectral efficiency from the 17°E orbital position, making it the most advanced digital satellite over the continent.

We crafted AMOS-17 specifically for the growing broadband, broadcast and communication needs of Africa's governments, communication operators, broadcasters and cellular companies, and worked closely with the manufacturer to deliver the most effective solutions.

The feedback from the African communications markets has been very encouraging. Prior to the launch, Spacecom has already pre-sold two of the satellite's four steerable Ka-band HTS beams in long-term deals, as well as some significant deals on its unique C-band HTS beams. The HTS beams provide excellent and reliable support for the growing mobile broadband markets that smartphones are creating. As soon as AMOS-17 reaches its orbital position and completes inorbit-testing, we are positive that many of the interested partners and customers will join the satellite for its superior performance and flexibility.

Which markets will the satellite focus on and why is this important?

Spacecom sees broadband (mobile and fixed), broadcast (with its growing demand for HD and 4K television channels), and cellular backhaul markets as Africa's primary growth drivers for the foreseeable future. Our role in the continent is to enable and assist telecom and broadband operators, broadcasters, MNOs and other providers to create affordable and reliable value added offers for their customers. With the region's remote geographic distances, diverse rural regions and fast growing semi-urban areas, satellite will remain the backbone for many of the services. With smartphone prices dropping, most African consumers are making smartphones the basis of their communication and social lives, and satellites provide the most reliable method of delivery in such regions. Satellites play a major role in enabling fast and efficient rollout of new coverage and services in these regions, with good download and upload speeds. AMOS-17's exceptional capabilities and performance will enable us to offer the most effective Total Cost of Ownership (TCO) for these applications and be the partner of choice for satellite capacity by operators. We are keen to make this happen.

AMOS-17 is not Spacecom's only satellite covering Africa. Can you tell us about any current African operations?

By the end of 2019, we will have three different satellites providing long-term and robust services from three different orbital positions into Africa, adding value in different communication markets to various important clientele. Our satellites, AMOS-7 at the 4°W

Spacecom sees broadband, broadcast and cellular backhaul markets as Africa's primary growth drivers for the forseeable future.



orbital position and AMOS-4 at 65°E, provide reliable communication solutions to the African continent, primarily to sub-Saharan Africa.

In 2018, we signed a number of important deals. For Botswana Telecommunications Corporation (BTC) we are supplying satellite services and capacity to its VSAT network that, coupled with Hughes' Jupiter platform, make it the continent's most technologically advanced network. Utilising AMOS-7's very highperformance Ku-band regional beam, Spacecom is providing BTC the highest efficiency satellite communication solution in the region. Our Vertical Solution Division partnered with the BTC teams to migrate its existing network towards next generation VSAT technology in record time. Today, Botswana's commercial and government users are experiencing high speed VSAT services, increased bandwidth, better service availability, and will enjoy new services to be offered by BTC.

We also began providing satellite capacity

on AMOS-7's Africa Ku-band beam for permanent and occasional SNG (Satellite News Gathering) services for one of Africa's largest public broadcasters. Together with Globecast, we are providing a long-term solution for this broadcaster. This partnership is a further step in Spacecom's expanding high-profile business presence in sub-Saharan Africa.

How will Spacecom approach the issue of off-grid network connection across Africa?

Spacecom is ready to connect sub-Saharan Africa's unconnected. We are continuously seeking opportunities to collaborate with other forward-looking partners in growing Africa's rural, off-grid communications market. With our specifically designed satellites allowing extremely low power consumption, solar-only powered remote locations, we will be at the forefront of enabling all of Africa's communities to bridge the digital divide. ©

Siemens launches Atlas of Digitalization to measure potential for City 4.0

The new Atlas identifies digital readiness and potential for six cities: Dubai, Los Angeles, London, Buenos Aires, Taipei and Johannesburg.

IEMENS HAS LAUNCHED new web-based application which reveals the readiness and potential of six major cities to embrace digitalisation and develop new ways of living, working and interacting. The Atlas of Digitalisation focuses on three interconnected themes mobility, sustainability and opportunity - and assesses how the fourth industrial revolution has already augmented urban life around the world, and the potential impact it could have in the future.

Data from 21 indicators has been analysed in Dubai, Los Angeles, London, Buenos Aires, Taipei and Johannesburg to produce a digital readiness score, considering areas such as smart electricity and transport systems, internet connections and digital governance services. The score reveals the current level of maturity of each city's digital infrastructure, and its preparedness for a connected future.

We hope the Atlas of Digitalisation will inspire new ways of thinking to realise the full global potential of City 4.0.

"Each city must address its own unique mix of challenges and opportunities by combining the physical and digital worlds; we believe embracing digitalisation is the key to sustainable, livable future cities," said Sabine Dall'Omo, Siemens CEO for Southern and Eastern Africa. "The Atlas of Digitalisation gives us an all-important understanding of the current status of digitalisation in key cities, and we hope it will



inspire new ways of thinking to realise the full global potential of City 4.0. With intelligently applied technology and data analytics, our aim is to shape the smart cities of tomorrow."

The analysis considers areas such as innovation, greenhouse gas emissions and time spent in traffic to give the cities a digital potential score, indicating where there is opportunity to grow digital capabilities to transform society and economy. Together, the readiness and potential scores illustrate the different capacities each city already has, and where they can develop to effect change and growth.

While each city is unique, they all share one characteristic – their ingenuity in using digital technologies to make infrastructure more efficient and productive, and to address challenges such as air pollution, congestion, population growth and natural hazards.

With the integration of data

gathered and analysed by the Internet of Things, a city's underlying infrastructure can be monitored, managed and improved; a transformation referred to as City 4.0.

Johannesburg's low digitalisation readiness score of 2/10 indicates that there is room for improvement, even though programs like smart metering are already in place. The digitalisation potential score of 6/10 reveals that digitalisation within mobility and sustainability could have a significant impact on Johannesburg. The city is investing heavily to increase overall public transport capacity and has begun the process of including renewables in the energy mix, this could impact the environment and jobs positively.

"Although our progress is lagging compared to our European counterparts for example, we're still making great strides towards becoming a digitally inclined city. Our Siemens FABRIC initiative is the perfect example of how data can be used to identify the needs of a city and ensure smart decision-making to advance it and make it more efficient for a growing population. For us to succeed as a city in this age of digitalisation we need to embrace the possibilities and changes that it brings. Siemens is ready to contribute to the advancements of this city," added Dall'Amo.

Data from the 21 indicators has been mapped across three themes: sustainability, mobility and opportunity, creating unique visualisation of each city's digitalisation landscape. Visitors to the Atlas of Digitalisation can interact with each city and explore its data, taking an in-depth look into how each is addressing its own challenges and opportunities, and how it will impact work and life in future cities. ©

To engage with the Atlas of Digitalisation, visit Atlas.dc.siemens.com

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Not embracing the cloud can dull your competitive edge

Hemant Harie, managing director at Gabsten Technologies, brings to light the power and prevalence of Google's all knowing, all-seeing 'Cloud', as well as the digital alternatives gaining momentum among SMMEs across Africa.

> BITAL TRANSFORMATION IS essential if any organisation is to remain relevant today and future proof their foundation. Cloud platforms and services are part and parcel of this, and there is a general understanding that organisations 'must' migrate to the cloud. However, despite this, many businesses are still sitting on the proverbial fence about migrating to 'the cloud'. The reality is that every business is already using cloud services to some degree, and without a formal strategy they could land up facing unforeseen challenges. Without cloud services, business is all but impossible, so organisations need to get up to speed or risk losing their competitive edge.

> One of the biggest challenges around the cloud is actually understanding everything that it entails. There are various levels of cloud integration that many businesses are using unknowingly, and this lack of knowledge could prove detrimental for these businesses. For example, Gmail and the Google suite of tools are cloud services, and they are widely used by many people. If your employees access their Gmail account at work, then your organisation is using cloud services.

> This is a basic example, but it demonstrates just how pervasive the cloud has become. There are a number of cloud applications that are all too easy to obtain by anyone with a credit card. What often happens is that departments within an organisation do not go through formal procurement processes with IT and simply obtain services themselves. This might include accounting packages, marketing tools and more. So, any enterprise might, in fact, have several cloud services in use in their business, but these are outside of the control of IT and do not form part of any formal back-up or disaster recovery solution. This can cause compliance breaches, lost data and business downtime to name a few challenges.

> While it is impossible to entirely avoid the cloud, it is not recommended to simply move everything into the cloud either, especially not without a plan. Data is the critical thread that ties this all together. Data must be secured, protected, and recoverable. This means all cloud solutions need to be part of an organisation's overall digital/technology strategy. It also means that before moving anything into the cloud it is absolutely essential to assess the entire business environment. The full implications, integrations and interactions must be understood before migrating anything into the cloud, and business requirements must be taken into account before any move is considered.



Hemant Harie, managing director at Gabsten Technologies.

When done correctly, cloud migrations can deliver many benefits. Migrating to a cloud-based mail server can ensure availability without the capital outlay and need for internal skills to maintain it. It provides the exact same service and functionality at a far more affordable monthly fee. Conversely, if the organisation migrates components into the cloud and then wishes to remove this data, there may be hidden costs and processes involved, including fees to extract data and restore timelines which may jeopardise restore time goals.

Disruptive new entrants into the market, unburdened by legacy infrastructure and processes, have the advantage here and can easily steal market share from more established players. Without the cloud, businesses risk stagnation and dulling of their competitive edge. However, getting it right is crucial. Organisations need to understand what systems they have in place, what data they own, what applications are being used, and how all of these integrate and interact both from a technical as well as from a business perspective. The organisation needs to understand what to move to the cloud and what not to. Often, this means partnering with a specialist provider, who can help the company develop a roadmap to the cloud that works for the business.

The cloud is everywhere, and all organisations are using it in some form, regardless of whether they acknowledge it or not. If the organisation does not embrace digital transformation and leverage the benefits of the cloud, it will lose the ability to maintain competitive advantage. ©

The cloud is everywhere, and organisations are using it in one form or another, whether they acknowledge it or not.

Haut débit

AMOS-17: Un satellite de pointe conçu pour l'Afrique

AMOS-17 est un satellite spécialement conçu pour répondre aux besoins croissants de l'Afrique en matière de communications et son lancement est prévu pour cet été. Communications Africa a rencontré Eran Shapiro, Directeur Activités Commerciales et Technologiques de Spacecom, qui nous parle des opportunités qu'offre AMOS-17.

Les faisceaux bande-C HTS de AMOS-17 combinent, de façon unique, le haut-débit HTS avec la disponibilité de la bande-C, pour desservir l'Afrique subsaharienne.

Pouvez-vous nous dire plus sur le satellite AMOS-17 et son importance pour l'amélioration des communications satellite en Afrique?

Spacecom, opérateur de la flotte satellitaire AMOS se prépare actuellement au lancement de cet été, ainsi qu'aux opérations commerciales subséquentes partout en Afrique, de son tout nouveau satellite: AMOS-17.

D'un point de vue technologique, ce satellite est le satellite le plus avancé dont l'Afrique ait pu bénéficier jusqu'à présent. Fabriqué pour Spacecom par Boeing sur sa plateforme 702MP, AMOS-17 fournira une large gamme de services grâce à sa charge utile numérique de pointe. De fait, le satellite fera office de passerelle pour relier l'Afrique, l'Europe, le Moyen-Orient, l'Inde, la Chine et d'autres régions d'Asie, jusqu'au Brésil. Nous avons conçu ce satellite avec une flexibilité considérable, ce qui va nous permettre de fournir à nos clients des services uniques à valeur ajoutée. Cette passerelle est essentielle pour favoriser de nouvelles percées et instaurer une nouvelle ère numérique en Afrique subsaharienne dans laquelle les services satellite de pointe auront un rôle central.

Nous sommes impatients pour ce lancement et aussi très enthousiastes à l'idée de pouvoir coopérer avec des fournisseurs de services de communication, gouvernements et services de radiodiffusion africains et combler ainsi le fossé numérique qui nous sépare.

Que rend AMOS-17 idéal pour la fourniture de services de communication sur le continent? Par une étroite collaboration avec des

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Fran Shapiro, Directeur Activités Commerciales et Technologiques de Spacecom.

fournisseurs de services de communication et des gouvernements en Afrique, qui nous permet de mieux comprendre leurs besoins actuels et futurs, Spacecom apportera une valeur ajoutée substantielle pour satisfaire ces besoins. Tenant compte de différents besoins. conception de AMOS-17 convient la parfaitement à pluisieurs types de services de communication partout en Afrique et particulièrement aux entreprises et gouvernements d'Afrique subsaharienne. Le satellite fournira une couverture haut-débit en bande-C (HTS), bande-Ka et bande-Ku. Il sera capable de combiner des faisceaux régionaux larges et des faisceaux locaux haut-débit pour optimiser le rendement et l'efficacité spectrale depuis la position orbitale 17°E, faisant de lui le satellite numérique le plus avancé audessus de l'Afrique.

Nous avons conçu AMOS-17 spécifiquement

pour répondre aux besoins croissants en termes de bande passante, de diffusion et de communications auxquels sont confrontés les gouvernements, opérateurs de services de communication, services de radiodiffusion et sociétés de services cellulaires basés en Afrique. Ceci nous a permis, avec le constructeur du satellite, de construire un satellite qui offre des solutions optimales.

Les retours que nous avons eus de la part des marchés africains de la communication sont très encourageants. Avant le lancement, Spacecom a déjà pré-vendu, dans plusieurs contrats long-terme, deux des quatre faisceaux dirigeables du satellites, en bande-Ka hautdébit (HTS), ainsi que plusieurs contrats significatifs concernant ses faisceaux uniques HTS en bande-C. Les faisceaux HTS offrent un soutien excellent et fiable aux marchés hautdébit mobile croissants que suscitent les smartphones. Dès que AMOS-17 aura atteint sa position orbitale et validé ses essais en orbite, nous sommes convaincus que la plupart des partenaires et clients intéressés rejoindront AMOS-17 pour son niveau supérieur de performance et de flexibilité.

Sur quels marchés le satellite sera-t-il axé et pourquoi est-ce important?

Selon Spacecom, les marchés du haut-débit (mobile et fixe), de la diffusion (et sa demande croissante de chaînes télévisées HD et 4K), et du backhaul cellulaire sont pour l'Afrique des facteurs de croissance majeurs dans un avenir proche. Notre rôle sur le continent consiste à permettre aux opérateurs de services télécom et à large bande, opérateurs de services de radiodiffusion, et autres opérateurs de réseau mobile d'offrir à leurs clients des services fiables, abordables et à valeur ajoutée, et à les soutenir dans cette démarche. Étant donné les distances géographiques au sein de la région, de nombreuses régions rurales et zones semiurbaines en forte croissance, le satellite demeure l'épine dorsale pour nombreux de ces services. Le prix des smartphones en baisse permanente, la plupart des consommateurs africains utilisent leurs smartphones comme base pour leurs communications et leur vie sociale, et le satellite est le moyen le plus fiable de couverture dans ces régions. Les satellites jouent un rôle majeur pour permettre le déploiement rapide et efficace de nouvelles zones de couverture et de services dans ces régions, avec de bonnes vitesses de réception et de transmission. Les capacités et la performance exceptionnelles de AMOS-17 vont nous permettre d'offrir le meilleur Coût du cycle de vie (TCO) pour ces applications et d'être un partenaire de choix pour la capacité satellitaire auprès des opérateurs. Nous avons hâte de réaliser ceci.

AMOS-17 n'est pas le seul satellite de Spacecom couvrant l'Afrique. Pouvez-vous nous dire quelles sont vos autres opérations actuellement en cours en Afrique?

D'ici la fin 2019, nous aurons trois satellites différents, offrant des services fiables et à long terme, depuis trois positions orbitales différentes, vers l'Afrique, ce qui ajoute de la valeur aux différents marchés de communication pour divers clients importants. Nos satellites, AMOS-7 à la position orbitale 4°W et AMOS-4 à la position orbitale 65°E, offrent des solutions de communication fiables au continent africain, en premier lieu à l'Afrique sub-saharienne.

Selon Spacecom, les marchés du haut-débit, de la diffusion et du backhaul cellulaire sont pour l'Afrique les facteurs de croissance majeurs dans un avenir proche.

En 2018 nous avons signé plusieurs contrats importants. Pour Botswana Telecommunications Corporation (BTC), nous fournissons des services satellite et une capacité satellitaire à son réseau VSAT qui, couplé à la plateforme Jupiter de Hughes, constitue le réseau le plus avancé du continent d'un point vue technologique. Grâce au faisceau régional en bande-Ku de très haute performance de AMOS-7, Spacecom offre à BTC la solution de communication satellite la plus



efficace de la région. Notre Division Solutions Verticales a collaboré avec les équipes de BTC pour migrer ses réseaux existants vers une technologie VSAT de dernière génération. Aujourd'hui les utilisateurs commerciaux et gouvernementaux du Botswana bénéficient de services VSAT haute vitesse, d'un débit plus élevé, d'une meilleure disponibilité des services et pourront profiter également des nouveaux services qui seront offerts par BTC.

Nous avons également commencé à offrir une capacité satellitaire sur le faisceau Afrique, en bande-Ku, de AMOS-7 pour des services permanents et occasionnels de retransmission par satellites (SNG) pour l'un des plus grands services publics de radiodiffusion d'Afrique. Avec Globecast, nous offrons une solution à long terme pour ce service public de radiodiffusion. Ce partenariat est une nouvelle étape dans la présence commerciale à haut-profil croissante de Spacecom en Afrique sub-saharienne.

Comment Spacecom prévoit-elle d'aborder la correction du hors-réseau en Afrique?

Spacecom est prête à relier tous ceux qui ne sont pas connectés en Afrique sub-saharienne. Nous cherchons en permanence à pouvoir collaborer avec d'autres partenaires tournés vers l'avenir et favoriser ainsi la croissance du marché de la communication en Afrique. Avec nos satellites, nous serons en première ligne pour permettre à toutes les communautés d'Afrique de combler le fossé numérique. *©*

Digitalisation can boost Africa's global economic power: Afreximbank

The African Export-Import Bank (Afreximbank) has highlighted the importance of digitalisation in driving development across the continent and further integrating African countries into the wider global economy.

IGITALISATION CAN UNLOCK Africa's potential in driving economic development and the integration of African countries into the world economy, according to a report by the African Export-Import Bank (Afreximbank).

The African Trade Report 2019: African Trade in a Digital World, launched in Moscow during the 26th Afreximbank Annual Meetings, states that Africa's total merchandise trade in 2018 had a value of more than US\$997.9bn, noting that the continent remained one of the fastest growing regions in the world.

Digitalisation can also reduce the region's dependency on raw commodities and natural resources by helping economies diversify into more value-added products that can enhance extra-and intra-African trade.

Africa's output grew by 3.4 per cent between 2017 and 2018 despite the slowdown in global growth during that period, according to the report.

World Trade Organisation estimates show that the volume of global merchandise trade grew by three per cent in 2018, down from 4.6 per cent in 2017. The findings highlight the resilience of Africa's economies to global volatility at a time of rising uncertainty, escalating trade wars and tariffs between the United States, China and others.

"It is vital that African grasps the opportunities from AfCTA and develop, industrialise and diversify our industries"

This resilience reflects the diversification of Africa's trading partners in the context of South-South trade, growing fixed investment and public and private consumption, boosted by expanding urban populations and softening inflation.

These factors reduce Africa's exposure to the business cycles associated with individual countries and regions.

The report noted that while the European Union remained Africa's main continental trading partner in 2018 - accounting for 29.8 per cent of total trade – African trade with the South grew significantly over the last decade to account for more than 35 per cent of the continent's total trade in 2018. China and India further consolidated their positions as Africa's first and second single largest trading partners, accounting for over 21 per cent of total African trade in 2018. Intra-African trade also increased steadily in 2018, growing by 17 per cent to reach US\$159bn. The report highlights that Africa has the potential to do more, noting that its contribution to global trade remains marginal at 2.6 per cent, up from 2.4 per cent in 2017, and that, while intra-African trade rose to 16 per cent in 2018 from five per cent in 1980, it remains low compared to intra-regional trade in Europe and Asia.

The report states that ongoing digitalisation is paving the way for a new African economy, with e-commerce platforms and internet penetration expediting transactions, reducing costs and leading to a new generation of transnational digital consumers.

The report urges African governments to further capitalise on the opportunities associated with digitalisation, by bolstering regulatory environments and supporting the development of digital ecosystems.

Benedict Oramah, President of Afreximbank, said, "It is vital that Africa grasps the economic growth opportunities flowing from the African Continental Free Trade Agreement, growing domestic demand and population and our evercloser investment and trading links with emerging partners in the South. We must exert concerted action to ensure that we develop, industrialise and diversify our industries and supporting infrastructure to foster regional integration and participate fully in regional and global value chains." ©

5 launches Ariane two new satellites

AN ARIANE 5 rocket launched two new communications satellites into orbit on 20 June from the Guiana Space Centre in Kourou, French Guiana. It carried payloads for two satellite operators: the T-16 satellite of AT&T (also known as DirecTV 16) and the Eutelsat 7C satellite for Paris-based Eutelsat Communications, according to a statement by Arianespace.

The T-16 is the eleventh satellite launched by Arianespace for AT&T following SKY Mexico-1 and DirecTV 15 launched in May 2015 and SKY Brasil-1 launched in February 2017. The statement added that T-16 will provide high-power broadcast services covering the US, Alaska, Hawaii, and Puerto Rico.

Eutelsat 7C will help boost broadband coverage over sub-Saharan Africa, which will help accommodate the expanding TV market in the region.

WorldRemit boosts app for Cameroon

WORLDREMIT, AN ONLINE money transfer service, has announced that it will introduce a new app features to make it easier for remittance recipients in several countries, including Cameroon, to manage funds sent from overseas.

The company stated that the new app features are free of charge and give full control to WorldRemit money transfer recipients over when and how to withdraw their remittances.

Andrew Stewart, managing director for the Middle East and Africa at WorldRemit, said, "Cameroon is one of our top 10 remittance receiving countries globally, so we are delighted to make it even easier for money transfer recipients in the country to manage their funds.

WorldRemit first launched its online money transfer service to Cameroon in 2012, and transfers to the country have grown by more than 90 per cent year-on-year. Using the WorldRemit app or website, the community can send

Dangote deploys Freshservice to unify IT services across its subsidiaries

NIGERIA-BASED INDUSTRIAL CONGLOMERATE Dangote Group has deployed Freshservice, a new cloud-based services desk software to unify information technology (IT) service management across its 19 subsidiaries, and modernising other business functions

Freshservice and IT Services Management software by Freshworks Inc streamlines workflow management and improves response time by 38 per cent per year.

The initiative is in line with Dangote's aim to allow more than 150 IT support agents to streamline workflow management for more than 10,000 employees across its 19 subsidiaries and enabling them to seamlessly work across geographies.

The integration service by Freshwork offers a host of ITIL - aligned features, workflow automation, and powerful analytics - all accessible through a clean intuitive interface. Freshservices provides improved operational efficiencies and effectiveness as well as streamline compliance. The integration is supported by Al-powered self-service, a mobile app that solves IT issues whenever and wherever they occur.

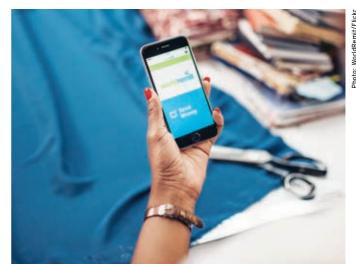
Saurabh Prabhuzantye, head of business for MENA, Freshworks said, "With the changing business needs of diversified conglomerates, there is an urgent need for agile software that can effectively manage complex business requirements at scale."

Under the Freshservice's implementation, average response time reduced from 7.5 mins in 2017 to 5.4 mins in 2018 - which is 38 per cent improvement in the average response time.

Prasanna K Burri, Group CIO, The Dangote Group, explained, "With Freshservice we knew we had an opportunity to undergo a complete transformation of our IT service management, to add more value to our business by improving productivity at all levels."

Freshworks Inc provides customer engagement software to businesses of all sizes including customer support, sales and marketing.

www.communicationsafrica.com



Mobile money has been made easier in Cameroon.

money from their phone without having to pay expensive fees to a money transfer agent.

"Previously, only senders of WorldRemit transfers could select whether their money was received by bank deposit, collection as cash or mobile money transfer. The new service gives receivers with or without a methods," Stewart concluded.

bank account full control over how they manage their remittances, enabling them to store funds in a remote account in multiple currencies, send money to other WorldRemit users in the same country, or withdraw their funds at any time via any of our convenient pay-out

Africa's Wi-Fi growth in full force: Ruckus

WORLD WI-FI DAY is celebrated every year on 20 June, signifying a day where governments, industries and consumers recognise the important role of Wi-Fi in socio-economic development.

According to Riaan Graham, sales director for Ruckus Networks (now part of CommScope via acquisition) sub-Saharan Africa, said, "Wi-Fi networks across commercial, government and communities, have continued to grow at a rapid pace across the continent."

"Both governments and network operators are realising with high-speed backhaul networks, it is a small marginal cost to add Wi-Fi access points at key points in the networks. As a result, Wi-Fi is currently connecting millions of people in Africa and represents one of the most expedient and cost-effective ways to increase both capacity and coverage. And its growth is in full force," Mr Graham said. "Africa's continued growth is driven by the need to not only connect the unconnected but to consolidate demands for access and data," he added. "What's more, the ubiquity, reliability, performance and cost effectiveness of Wi-Fi have created a massive footprint that will retain its prominent role as we transition to new networks, such as 5G."

With the transition to Wi-Fi-where most providers are already scaling access points and technology infrastructures to accommodate this shift - this is even more critical. In fact, Wi-Fi will be important to the overall industry and will bring better speeds, lower latency and enhanced support. The flexibility and scalability that Wi-Fi enables results in increased speed and capacity with nextgeneration applications.

"For Africa to realise the true potential that Wi-Fi technology can bring to the continent, the issues of spectrum needs to solved so the necessary infrastructure can be accessible for limitless possibilities, encouraging a better quality of life, business growth and investments into the continent," Mr Graham concluded.

Canal Algérie now on Arabsat-5C

TELEVISION CHANNEL CANAL Algérie is now available on Arabsat-5C, making the channel available on the satellite's direct-to-home platform.

Broadcasting company Globecast is expanding its longstanding relationship with Arabsat, providing the technical broadcast solutions needed to deliver Canal Algérie across Africa.

Arabsat-5C at 20° East is designed to serve the African market, matching the specific technical requirements with the growing demand across the continent. Arabsat-5C has a huge footprint, equipped with a powerful C-band beam that covers 100 per cent of African satellite TV households and requires only the minimum dish size required to receive its channels. This new broadcast of Canal Algérie is part of the commercial contract between Télédiffusion d'Algérie, the Algerian public TV and radio broadcasting operator and Globecast.

VIAVI announces 5G standalone testing capability

VIAVI SOLUTIONS HAS announced that the VIAVI TeraVM 5G testing solution supports standalone (SA) specifications according to the latest 3GPP standards, in addition to non-standalone (NSA) mode.

With the capability to reliably emulate 5G RAN and core network elements, TeraVM enables end-to-end, wraparound testing of gNodeB base stations (gNBs) and 5G core network functions, accelerating 5G development and deployment.

The TeraVM solution enables network equipment manufacturers, node developers and service providers to test mobile RAN and core elements, validating that the equipment works according to 3GPP standards, interoperates with other 5G elements, and performs optimally when fully loaded with complex mobile traffic profiles – even when error situations are injected. As a result, highly optimised networks and robust 5G services can be delivered to market faster, more reliably, and with minimal risk.

Part of VIAVI's complete Lab To Field network testing and assurance portfolio, TeraVM allows scalable, real-world network emulation in the lab, data centre or the cloud, delivering comprehensive coverage for consistent performance validation. This virtualised testing solution is the first mobile network emulator to support new 5G SA specifications, enabling a more agile, 3GPP-compliant network without delay. "The industry roadmap to 5G SA network equipment has been accelerated, and manufacturers and service providers alike need end-to-end, standards-compliant testing capabilities now to speed up network deployment and 5G service delivery," said lan Langley, vice-president and general manager, Wireless Business, VIAVI.

"VIAVI continues to lead the way, delivering complete solutions for validation, verification and visibility to develop, test, assure and optimise 5G networks with speed and success in both the lab and the field."

VIAVI Lab To Field

Lab To Field enables complete 5G lifecycle testing, from wraparound base station validation and IoT emulation in the lab, to verification in the field and beyond, for optimum performance and service assurance. In addition to the TeraVM 5G Core and vRAN Emulator, this portfolio includes the market-leading TM500 solution, considered the standard for lab validation of network performance as experienced by end users.

To ensure and optimise 5G services, VIAVI offers CellAdvisor 5G, the first true 5 G base station analyser to support large-scale deployments, and NITRO Mobile, a realtime intelligence platform that captures, locates and analyses all mobile events across the RF, RAN, xHaul and core.

Ericsson launches enhanced 5G deployment options

ERICSSON HAS LAUNCHED NR software and hardware solutions to extend network capacity and coverage, enabling smooth network evolution and facilitating new consumer and industry use cases. In addition to extending deployment possibilities, 5G standalone NR software aims to make for new network architecture, with benefits such as ultra-low latency and better coverage.

Ericsson is evolving its cloud solution with an offering optimised for edge computing. This will enable service providers to offer new consumer and enterprise 5G services such as augmented reality and content distribution at low cost, low latency and high accuracy. Coupled with Ericsson's 5G dual-mode Cloud Core solutions, the new products are aimed at opening business opportunities for service providers, establishing an architecture that facilitates agility, provides advanced support for network slicing and enables the speedy creation of new services. Most operators are expected to start with NSA and once the 5G coverage has been established, also deploy standalone.

Low bands will play a major role in efficiently extending coverage provided by 5G deployments. Ericsson has launched Inter-band NR Carrier Aggregatio, which extends the coverage and capacity of NR on mid- and high bands when combined with NR on low bands. This will improve speeds indoors and in areas with poor coverage. Two new MIMO radios have been added to the Ericsson Radio System mid-band portfolio, allowing service providers to build 5G with precision: AIR 1636 for wider coverage which provides optimised performance on longer inter-site distances; and AIR 1623 for easy site build at a low cost.

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