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Satellites
Overcoming connectivity challenges

Power
Clean energy to help African telecom operators

Mobile broadband
The rising demand for data and cloud services

FEATURES: ● Communications ● Mobile ● Satellites
REGULAR REPORTS: ● Agenda ● Solutions

Inset: demerzel21

CONTENTS

A note from the Editor

This issue will look at how digitalisation is creating the smart cities of the future. We explore the partnership between Smart Africa Alliance in partnership with government officials across Africa and how this has led to a new smart cities agenda. This issue will look at this rise of mobile data and cloud services in the continent and underserved communities. As IBC is underway, we look at some of the new solutions from exhibiting companies. This issue also looks at the cyberthreat facing the continent.

Une note du rédacteur

Ce numéro examinera comment la digitalisation crée des villes intelligentes du futur. Nous explorons le partenariat entre Smart Africa Alliance en partenariat avec des responsables gouvernementaux en Afrique et comment cela a mené à un nouveau programme de villes intelligentes. Ce numéro examinera cette augmentation des données mobiles et des services en nuage sur le continent et les communautés mal desservies. Au fur et à mesure que IBC est en cours, nous examinons certaines des nouvelles solutions des entreprises exposantes. Ce numéro examine également la cyberthrie face au continent.

FEATURES

ARTICLES

Youtap launches mobile money QR code solution and apps

YOUTAP, A GLOBAL provider of contactless mobile payments and financial services software, has launched a QR code solution and smartphone apps for mobile money services in Africa and Asia. Youtap's QR code solution enables a full range of mobile money transactions, including cash-in and cash-out transactions, airtime top-ups, bill payments and in-store payments.

Tola Mobile helps merchants reconcile transactions in Africa

TOLA MOBILE HAS announced advances in its Tola.wallet product technology which can provide business continuity and operating resilience to its merchants in the rapidly growing African marketplace. Shane Leahy, CEO of Tola Mobile, comments, "Being able to reconcile transactions is vital in the region, just as if the credit card network was suddenly unavailable for a few hours in the UK, it would have a dramatic impact on business transactions."

Tanzania Women of Achievement (TWA) launches Twaa

TANZANIA WOMEN OF Achievement (TWA) launched Twaa Mentorship, an online portal and mobile app designed to provide mentorship and learning on the go for girls and women in Africa. Speaking at the launch, Irene Kiwia, TWA Founder and President said noted that the one-on-one mentorship and knowledge sharing on the go will help facilitate the growth of girls by enhancing their skills, empowering them to perform to their highest capabilities and helping them realize their full potential.

During the official launch of TWA. (Photo: Tanzania Women of Achievement)

PayU Nigeria designs a convenient payment solution for recurring bills

PAYU NIGERIA HAS launched PayU Subscription, a convenient payment method which allows merchants to safely and securely collect payments from consumers who have recurring bills or subscription payments in a seamless way. Country manager of PayU Nigeria, Juliet Nwanguma said, "PayU Subscription allows merchants to improve customer satisfaction by offering a more convenient way for their customers to pay for their subscriptions and other recurring bills."

Ericsson UDN strikes deal with Equinix

ERICSSON HAS SELECTED Equinix, Inc., to deploy its Unified Delivery Network (UDN) solution in Equinix's datacenters and across its business ecosystem of network service, cloud and content providers and enterprises in all industry sectors. Marcus Bergström, general manager, Unified Delivery Network, Ericsson, says, "The last mile nature of our UDN and the location of Equinix facilities in key metros around the world is a perfect fit. This partnership attracts new potential customers for both companies, by enabling them to deploy services closer to end users at the 'edge', resulting in higher quality content and more consistent QoE."

Nokia and Telefónica sign deal on 5G

NOKIA AND TELEFÓNICA have signed an agreement to evaluate technologies enabling an efficient network evolution to 5G in line with Telefónica's business objectives. The companies will assess how higher performance 4G and 5G networks will lead to the creation of compelling new services. Enrique Blanco, Systems and Network global director at Telefónica said, "As demand rises, we want to deliver the greatest possible network experience even as we expand our offering to both existing and new customers. Working with Nokia we will explore the potential of key technologies that allow us to do this in the most effective way on the path to 5G."

Kwese TV rolls out services in Zimbabwe

ZIMBABWEANS HAVE WELCOMED the entry of Kwese TV into the digital satellite television space. It offers locals an alternative to the state-owned Zimbabwe Broadcasting Corporation, which is infamous for peddling government propaganda. "Most importantly, subscribers will be supporting the home grown programmes though with Pan African appeal," Bvudzijena said. Econet Media, owned by Strive Masiyiwa, operates Kwese TV.

Rwanda's medical drone delivery system wins award

MEDICAL DRONE DELIVERY company Zipline's joint initiative with the government of Rwanda was on Friday awarded the 2017 Index Award, Body Category, in the Danish capital Copenhagen. The Index Awards- often referred to as the Nobel Prize for Design- are the most prestigious awards in the field of design with previous winners including icons such as Apple's Itunes and electric car giant Tesla. The Awards, in five categories, have prize money of up to €500,000.

Samsung Bixby launches in South Africa

SAMSUNG HAS LAUNCHED its Bixby voice assistant in 200 countries, including South Africa.The company said Bixby will be available in US English and Korean. "Bixby brings enhanced smartphone productivity and personalisation through Quick Commands, a feature that allows you to create a custom voice command to use in place of a sequence of one or more commands," said Samsung.

Energy Vision orders Flexenclosure's eSite x10 hybrid power system for Burkina Faso rollout

ENERGY VISION, A telecom-focused energy service company (ESCO), will use the eSite x10's to power with renewable energy off- and on/bad-grid telecom sites for a major mobile operator. "We aim to lead the telecom ESCO market in Africa, deploying the most innovative and technologically advanced infrastructure in order to offer our customers the highest possible network uptime and SLA at the lowest possible TCO," said Ofer Ahiraz, CEO, Energy Vision.

Rohde & Schwarz: Encoding and multiplexing solution with premium transcoding for OTT live streaming at IBC 2017

ROHDE & SCHWARZ enhances its successful R&S AVHE100 encoding and multiplexing solution by adding premium-quality adaptive bit rate (ABR) encoding as well as packetizing for all established formats for OTT live streaming. The R&S AVHE100 also fully supports high dynamic range (HDR) video transmissions. "The launch of the R&S AVHE100 4K/HDR scalable video and audio processing platform is a significant step toward the cost-effective deployment of UHD/HDR services alongside legacy SD and HD content.

Kenya rolls out e-passports

THE IMMIGRATIONS DEPARTMENT will start issuing the new Kenyan East African electronic passports from Friday even as applications for the document hit 1,800, at the time of its launch. Kenya becomes the second EAC State to launch the e-passport after Burundi with all member states are required to do so by December 31 next year. The electronic passport will guard against impersonation with the introduction of a unique chip through which the holders will be identified.

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Events/Événements 2017

OCTOBER/OCTOBRE

3-5	**IoT Solutions World Congress**	Barcelona, Spain	www.iotsworldcongress.com
3-5	**FTTH Council Africa**	Cape Town, South Africa	www.ftthcouncilafrica-conference.com
12-14	**Broadcast India**	Mumbai, India	www.broadcastindiashow.com
13-16	**Hong Kong Electronics Fair**	Hong Kong, China	www.hktdc.com
20-22	**ITTF**	Pristina, Serbia	www.ceokos.com
24-26	**Broadband World Forum**	Berlin, Germany	tmt.knect365.com5
25-26	**Critical Communications MENA**	Dubai, UAE	tmt.knect365.com
25-27	**Natexpo**	Moscow, Russia	www.natexpo.ru
25-27	**Communic Indonesia Jakarta**	Jakarta, Indonesia	www.pamerindo.com
25-27	**DISCOP**	Johannesburg, South Africa	discopafrica.com
30-31	**TV Connect MENA**	Dubai, UAE	tmt.knect365.com

NOVEMBER/NOVEMBRE

7-9	**Africa Com**	Cape Town, South Africa	www.cairoict.com
7-8	**WorldDAB General Assembly**	Paris, France	www.worlddab.org
14-15	**MVNOs Networking Congress**	London, UK	tmt.knect365.com
26-31	**Cairo ICT**	Cairo, Egypt	www.cairoict.com

Iland introduces disaster recovery collaboration with VMware

ILAND, THE GLOBAl cloud service provider of secure and compliant hosting for infrastructure (IaaS), disaster recovery (DRaaS), and backup as a service (BaaS), has introduced iland Secure DRaaSSM powered by VMware. It is designed for organisations running on-premises vSphere environments or outsourced private clouds with other cloud providers that want to natively protect their virtual workloads in the cloud by leveraging VMware vSphere replication.

"VMware vCloud Availability enables VMware Cloud Providers to offer simple, cost-effective cloud-based disaster recovery services that seamlessly support their customers' VMware vSphere® environments by leveraging native vSphere replication capabilities," said Geoff Waters, vice president, Global Cloud Sales, VMware.

Faced with increased cyber attacks, it is paramount companies have a robust and secure disaster recover solution. The challenge around disasters, whether a natural catastrophe, system failure or even malicious software isn't about keeping secure copies of information, but being able to react quickly to lessen the impact of an outage.

iland Secure DRaaSSM powered by VMware supports a full and partial failover and replication to and from the cloud. It also allows for non-intrusive, self-service testing which enables organisations to test without disrupting operations which gives them more confidence in a well-tested disaster recovery solution.

"As one of the first VMware Cloud providers, we are expanding our disaster recovery footprint to

With increasing cyber attacks, it is paramount companies have a robust and secure disaster recover solution. (Photo:adobestock)

incorporate a new VMware offering designed specifically for VMware Cloud Providers," said Justin Giardina, chief technology officer, iland. "iland Secure DRaaS powered by VMware leverages vCloud Availability, enabling VMware vCenter® server based organisations to protect VMs from their local datacentre to a cloud, natively integrating the replication with the underlying virtualisation technology."

With data centres all over the world, iland is considered a leader in disaster recovery. iland Secure Cloud Console natively combines deep layered security, predictive analytics and compliance to deliver unmatched visibility and ease of management for all of its cloud services.

Amino/Nordija solution

AMINO, THE IP/CLOUD video software and device provider, and Nordija, a company that specialises inadvanced content delivery solutions will together present an innovative dual mode platform that enables operators to seamlessly move between Android and Linux-based TV delivery.

Commenting on the new solution, Nordija's chief commercial officer, Jeroen van Vliet, said, "Together, Nordija and Amino can now offer operators the flexibility of a platform that switches seamlessly between Linux and Android TV environments.

As service providers seek to meet the demands of today's modern, digitally-savvy The solution provides the option to move between both modes via a remote software update, while also eliminating costly investment in hardware and user interface development."

Rohde & Schwarz to showcase encoding and multiplexing solution

ROHDE & SCHWARZ has enhanced its R&S AVHE100 encoding and multiplexing solution by adding premium-quality adaptive bit rate (ABR) encoding as well as packetising for all established formats for OTT live streaming.

The R&S AVHE100 encoding and multiplexing solution offers the best video quality available on the market for HEVC-encoded content from qHD to UHD, as demonstrated by Rohde & Schwarz at several shootouts during the past year. Quality and stability are also of vital importance for OTT providers who stream premium content simultaneously with live broadcasts. With the latest enhancement, the R&S AVHE100 can efficiently generate streaming formats in parallel with broadcast multiplexes on a single platform. The R&S AVHE100 provides ABR encoding, i.e. it simultaneously encodes multiple OTT live streams using several different video profiles so that the consumer always receives the best possible resolution, depending on the quality of the data connection. The platform's integrated packetizer fully supports all common formats such as MPEG-DASH, CMAF, HLS and MSS; as a result, the R&S AVHE100 supports a wide range of user devices.

The Rohde & Schwarz solution offers a statistical multiplex function, meaning an efficient utilization of data rates, making it possible to achieve higher picture quality for the transmitted programmes or to broadcast more programmes at a time. The R&S AVHE100 also supports a mixture of different video codecs, including MPEG-2, MPEG-4/H.264 and HEVC, and resolutions, such as SD, HD and UHD. This permits operators to continue employing legacy formats until a planned transition to a newer format is completed.

The R&S AVHE100 is a fully software-based solution that employs standard IT components. It provides the entire functionality of an encoding and multiplexing solution on a single server. It's integrated headend management system lets users control and monitor the entire workflow via a single web interface. Enhancements and improvements to coding and transmission standards are easily added, reducing capital and operating expenditures (CAPEX and OPEX) for installation, space, energy and cooling requirements, spare parts management and training. In addition, customers can conclude multi-year service level agreements (SLA) for 24/7 international support for enhanced investment protection.

Rohde & Schwarz's experience in the field of broadcasting, is reflected by the smart redundancy concept and many reliability features featured in the R&S AVHE100. The R&S CrossFlowIP function, a Rohde & Schwarz development, provides redundancy for both input and output signals through seamless switchover between the main and the alternate path. This ensures uninterrupted live transmission of the R&S AVHE100 in the event a fault is detected and during maintenance. In contrast to conventional solutions, the R&S AVHE100 provides this functionality without requiring an external management system.

MainStreaming integrates V-Nova PERSEUS

V-Nova Ltd. & MainStreaming has announced the integration of V-Nova PERSEUS™ 2 with MainStreaming's next generation HYPERNODE delivery network.

More and more enterprises and corporate customers are relying on video in business critical applications. This results in higher demand for reliable, high-quality, HD content delivered across increasingly congested and often unreliable networks. On these best-effort networks, service providers are finding it difficult to deliver their video services at the speed expected.

The integration of PERSEUS 2 within MainStreaming's HYPERNODE delivery network responds to the growing consumer demand for high-quality, reliable, IP-delivered services that are HD quality and reliable. MainStreaming, a Global Video Delivery Network designed for broadcasting real-time video live and on demand globally integrates all operative phases for management and distribution of video content . HYPERNODE, a system of integrated hardware, software, and networking, strategically distributed around the world and directly linked to thousands of telecommunication carriers, MainStreaming ensures a stable connection and delivery of content in real time to users connected to the Internet with any device.

"For operators and service providers to prosper, they must meet the consumer demand for services that instantly deliver high quality video in real-time on any device while connecting to every network," said Guido Meardi, CEO and Co-Founder of V-Nova.

MuxLab enables flexible distribution of SDI up to 12G

Two new solutions from MuxLab offer today's integrators the opportunity to streamline AV distribution systems using SDI equipment 500767 RX AFR SmallThe MuxLab 12G-SDI 1x6 Splitter. (Image source: MixLab)

MuxLab's 12G-SDI 1x6 Splitter (model 500718) delivers resolutions up to 4K on all six outputs simultaneously, ideal for broadcasters wanting to maintain top quality video when delivering one AV source to multiple destinations. A source using 3G-SDI can also be delivered to one, two or all six outputs at the same time. This solution automatically detects a 12G/6G/3G/HD/SD-SDI input and re-clocks and regenerates the signal at the output for the ideal distance between source and displays.

MuxLab's 3G-SDI 1x4 Splitter (model 500719) delivers 3G/HD/SD-SDI to four displays at the same time. The splitter supports up to 1080p video, including 48oi (SD-SDI), 720p/1080i (HD-SDI) and 1080p (3G-SDI). The solution automatically detects the 3G/HD/SD-SDI signal and re-clocks and regenerates the signal at the output for the ideal distance between source and displays.

"It's essential for broadcasters to have pristine 4K signal distribution solutions that support SDI in all its various formats up to 12G-SDI, and MuxLab is thrilled to bring these products to market," added Joe Teixeira, director, product development.

The new solution from MuxLab. (Photo: MuxLab)

New SanDisk 400GB microSDXC card enables users to capture more content than before: Western Digital

WESTERN DIGITAL CORPORATION has introduced the 400GB SanDisk Ultra microSDXC UHS-I card, one of the world's highest-capacity microSD cards for use in mobile devices, aiming to provide customers huge storage access to capture, save and share photos, videos and apps and enjoy offline content.

Two years after introducing its 200GB SanDisk Ultra microSDXC card, Western Digital has doubled the capacity within the same tiny form, keeping up with the demands of today's mobile-centric lifestyle.

The new SanDisk card can hold up to 40 hours of full HD video and features transfer speeds of up to 100MB per second to deliver apremium performance. At this transfer speed, consumers can move up to 1,200 photos per minute.

Through the updated SanDisk Memory Zone app, users will have greater control of their mobile device's memory storage. The app, available for free download from the Google Play store, is compatible with most Android-powered devices and allows users to easily locate, organise, transfer and back up data, including tagged content from Facebook and Instagram, said the company.

It has achieved this capacity breakthrough by leveraging its proprietary memory technology and design and production processes that allow for more bits per die.

"We continue to push technology boundaries and transform the way consumers use their mobile devices," said Sven Rathjen, vice-president for product marketing at Western Digital. "By focusing on achieving new technology milestones, we enable consumers to keep up with their mobile-centric lifestyles with storage solutions they trust," he explained.

Jeff Janukowicz, research vice-president, IDC, said, "Mobile devices have become the epicentre of our lives, and consumers are now accustomed to using their smartphones for anything from entertainment to business. We are collecting and sharing massive amounts of data on smartphones, drones, tablets, PCs, laptops and more. We anticipate that storage needs will only continue to grow as people continue to expect more sophisticated features on their devices and desire higher quality content."
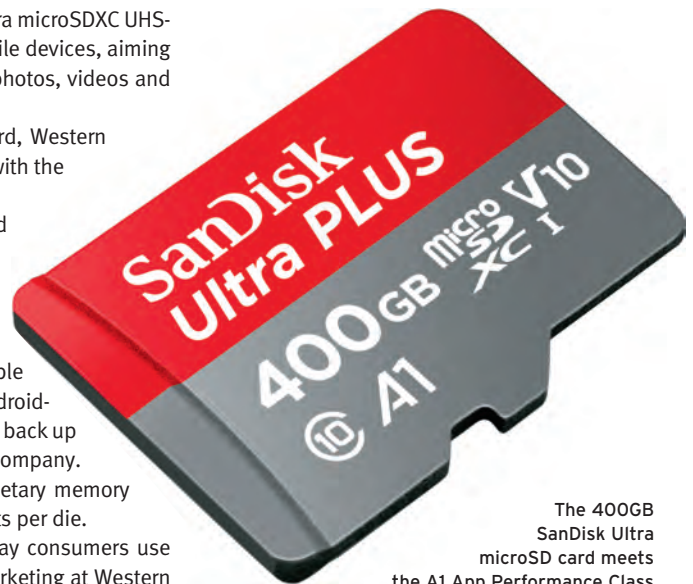
The 400GB SanDisk Ultra microSD card meets the A1 App Performance Class specification, which means that the card can load apps faster. (Photo: Western Digital)

Liquid Telecom upgrades East Africa Fibre Ring to 100G in key routes

LIQUID TELECOM, a pan-African telecoms group, has completed 100G upgrades to key routes on the East Africa Fibre Ring across Rwanda, Uganda and Kenya, enabling the company to offer the largest lit backhaul capacity in Africa.

According to the company, the upgrade to 100G wavelengths offers up to 10 times the speed of previously used 10G waves, helping its enterprise and wholesale customers with additional capacity and increased speeds.

Liquid Telecom will provide 100G links to the cities of Kigali in Rwanda, Kampala and Tororo in Uganda as well as in Nairobi and Mombasa in Kenya, with further 100G upgrades planned for the East Africa Fibre Ring in the near future.

"By upgrading to 100G, Liquid Telecom is ensuring that its fibre backbone can meet the rising demand for high-bandwidth, video and internet services from businesses and consumers across the region," said Nic Rudnick, group CEO of Liquid Telecom. "Through continuous investment, the East Africa Fibre Ring is setting new network standards for the region," he added.

Liquid Telecom is upgrading its East Africa fibre ring to 100G. (Photo: adobestock)

Teraco announces sponsorship to help boost Africa's internet infrastructure

TERACO, THE SAFNOG HOSTING sponsor, has announced a sponsorship to provide quality colocation infrastructure to all 13 global root operators to help to boost Africa's Internet infrastructure.

Andrew Owens, technical manager for interconnection and peering at Teraco, said that the decision to sponsor root operators was another way in which Teraco can continue to support the growth of the African Internet market.

"Root operators have been recognised as an important element of the Internet and in sponsoring colocation infrastructure, we hope to increase the number of root operators available within the continent," Owens stated.

He further added that Teraco has invited all root operators to join the company in its mission to build strong digital communities and improve internet services throughout the continent. "We are especially hoping that root operators such as Packet Clearing House (PCH), an international organisation responsible for providing operational support and security to critical Internet infrastructure, will join the Teraco community," he said.

Root operators play a critical role in internet infrastructure. They answer requests for records in the root zone and answer other requests by returning a list of the authoritative name servers for the appropriate top-level domain (TLD). The root name servers are the first step in translating human readable host names into IP addresses that are used in communication between internet hosts.

According to Owen, root operators can access more than 280 unique ASN's and service multiple African countries through a single deployment in Teraco's Johannesburg facility. "We recognise the support our community has given us over the years to grow Teraco and its internet exchange, NAPAfrica. We feel it's now time to do more than just fund NAPAfrica to help improve a user's internet experience in Africa."

"We believe that sponsoring the needed infrastructure for root operators will further improve the African internet experience," he stated.

Changing markets driving gradual increase in EAS spend: IDC

IN SPITE OF economic uncertainties and political instability, large and medium-sized organisations in South Africa continue to steadily increase their software investments to quickly respond to changing market conditions and enhance their core competitiveness, according to International Data Corporation's (IDC) recent South Africa Enterprise Application Software Market 2017–2021 Forecast and 2016 Vendor Shares report.

According to Mervin Miemoukanda, senior research analyst for software and market intelligence in Africa at IDC, despite large organisations remaining the primary source of on-premise enterprise application software (EAS) spend in 2016, the small and medium-sized enterprise (SME) segment has emerged as one of the key adopters of cloud-based EAS offerings and will likely remain so in the next three years.

"The South African EAS market was valued at US$396.09mn in 2016, with the depreciation of the rand having had a devastating impact on the overall market during the year. Some vendors recorded notable declines in their license and maintenance revenues, but these declines were partially offset by the increasing uptake of cloud-based EAS solutions in lucrative verticals such as manufacturing, retail, telecom, and finance," explained Miemoukanda.

Enterprise resource management (ERM) remained the most lucrative functional area of the EAS market in South Africa in 2016. The second-most lucrative functional area was business analytics (BA), followed by customer relationship management (CRM) and supply chain management (SCM), according to the report.

IDC has projected that the EAS market in South Africa will expand at 2.2 per cent CAGR across the forecast period. This low-single digit CAGR is dependent on the country's future economic outlook, particularly as the country's credit rating may be downgraded to junk status by major rating agencies in the coming months.

Miemoukanda has advised EAS vendors in the South African market to develop more cloud offerings in 2017. "Vendors should also take advantage of the implementation of the municipal standard chart of accounts (MSCOA) as this will give them the opportunity to strengthen long-term relationships with municipalities," he added.

Rwanda: Medical drone delivery system wins global award

MEDICAL DRONE DELIVERY company Zipline's joint initiative with the government of Rwanda was, last week, awarded the 2017 Index Award, Body Category, in Copenhagen, Denmark.

"Zipline is the first endeavor in world history using drones to deliver blood (and other essential medical supplies).", the organisers of the Awards said.

"It is the result of a laudable, multi-partner approach featuring Silicon Valley company "Zipline - Lifesaving Deliveries" and the Rwandan Government, whose aim is to put every single one of their 12 million citizens within a 15-35 minute range for delivery of any essential medical product that they could need."

Zipline co-founder Keenan Wyrobek attributed their choice of Rwanda as a partner to the Country standing out "as being data driven in their decision-making process and the most rigorous in how they analyse and manage risk in new projects. These two characteristics define Rwanda's innovative spirit and made Rwanda the obvious launch partner for us".

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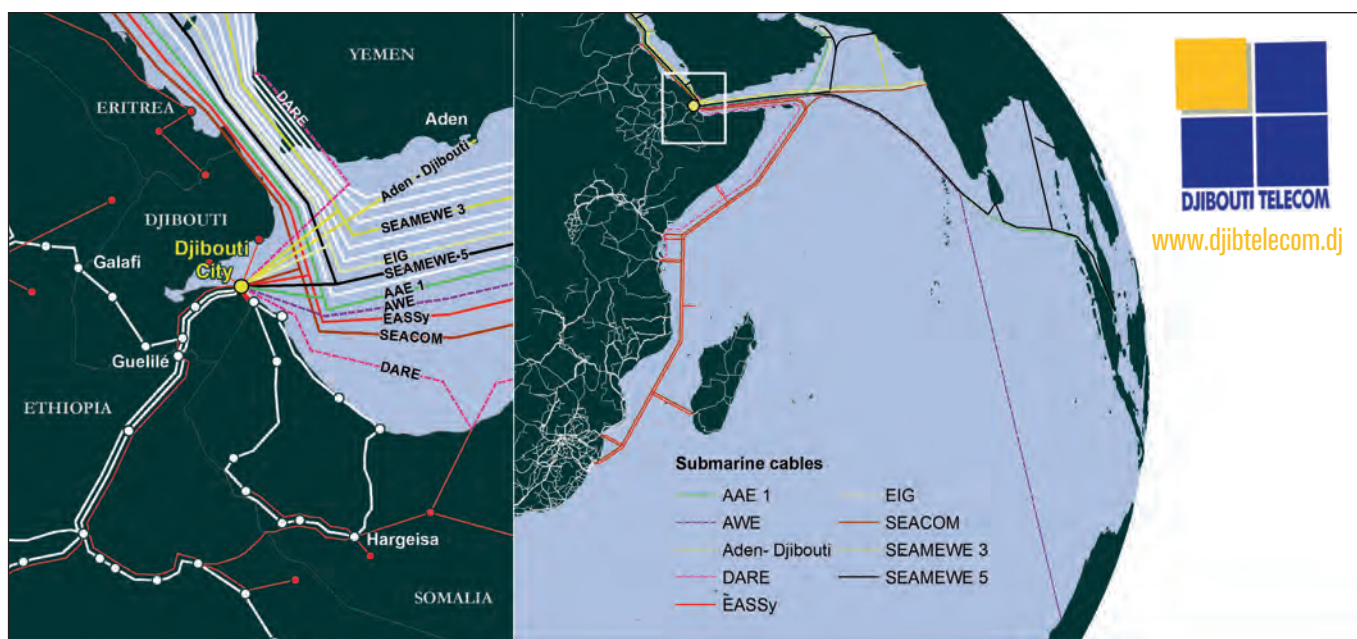
Djibouti Telecom SA, founded in 1999, is Djibouti's main telecommunications company. It provides fixed, mobile and internet services and strides to position as a key telecom hub for East Africa and the rest of the world. The company established itself as a regional center providing a large portfolio of voice, data/IP, capacity services and interconnections across its network which extends to Eastern and Southern Africa, the Middle East and Europe, along with an excellent bandwidth and network availability.

Djibouti Telecom also offers a wide range of communication infrastructure services from network connectivity to co-location services with both a data center and teleport facilities, peering agreements with major internet players and PoPs in Marseille, Palermo, Dubai, Singapore. To consolidate the quality and variety of services offered to its Internet users and its hub members, Djibouti Telecom connects to the various peering points such as DEC-IX in Marseille and Dubai, France IX Paris and Marseille, LINX in London etc.

Djibouti Telecom is today a leading strategic center for international telecommunications services in East Africa with its underlying network infrastructure comprising seven international submarine cables, with direct connection to over 90 countries, and two terrestrial cables.

Nigeria Com 2017 to revamp Africa's digital framework

Nigeria Com will take place in Lagos, Nigeria.
(Photo: el9th/adobestock)

THE ANNUAL EVENT Nigeria Com is going to take place at the Oriental Hotel Lagos from 20-21 September 2017, with objective to focus on strengthening the networks and ICT of digital Nigeria.

Nigeria Com 2017 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), mobile finance and commerce, big data and also discuss on the regulatory frameworks for the spreading of digital environment in the African market.

The session on IoT will focus on monetising the IoT opportunity while transforming cities, utilities, agriculture and more. The mobile finance and commerce session will focus on increasing the mobile money value chain, with big data session describing the use of data analytics to enhance retention and improve customer experience.

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 key themes of networks, digital services and customer experience.

The event will also provide a platform for the companies to exhibit their and showcase their products and solutions 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.

The event will 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, aiming to ensure that the participating companies are personally introduced to all of their key targets, developing connections and establishing their brand in the region.

According to Telco, "Nigeria Com is designed to enable operator attendees to develop their commercial strategies, technical operations, and consumer facing businesses across all segments of the ever-evolving digital ecosystem."

New products from Innova Diesel Generators

INNOVA DIESEL GENERATORS has developed Permanent Magnet Alternator (PMA), a product that offers robust & high efficiency output, which bears less design. The Permanent Magnet Alternator is compatible for various brands of engines which can be mounted directly on the engine fly wheel and it can be used as variable speed DC Generators for telecom, Railways and other applications.

Variable speed DC generators has the features of high fuel efficiency with savings of 20 per cent to 40 per cent fuel.

This Hybrid system combines two energy sources; the sun and a Diesel Genset, where the genset supplies excess load and recharge the battery during overcasts.

The Hybrid Unit consists of Diesel Engine coupled to a direct contact compact flywheel mounted High frequency bearing less permanent

The Permanent Magnet Alternator can be used as variable speed DC Generators for telecom. (Photo: Silken Photography/adobestock)

magnet alternator.   The genset produces AC at very high frequency which is rectified to DC and can be used immediately to recharge the battery and satisfy load demand simultaneously. The single Micro controller based IP68 Controller offers remote monitoring functions.

Les partenaires MTN et Liquid Telecom sur les nouveaux projets d'expansion

LES CLIENTS DU Groupe MTN et de Liquid Telecom vont bénéficier des nouveaux projets d'expansion des deux entreprises s'étant réunies pour proposer conjointement à leurs clients un accès à la plus large empreinte fixe et mobile à travers l'Afrique.

L'accord comprendra des offres de gros, d'opérateur à opérateur, de bande à haut débit, ainsi que des services de données fixes. Il permettra à MTN et à Liquid Telecom d'accéder à leurs réseaux fixes et mobiles respectifs dans les pays du continent africain.

Selon Liquid Telecom, le partenariat répond à la demande croissante des entreprises d'Afrique de l'Ouest relative au service à large bande de l'entreprise. « Nous avons une réputation bien méritée de prestataires de service de bande passante de qualité aux entreprises en Afrique de l'Est, Afrique Centrale et Afrique du Sud. Nous posons 100 km de nouveau câble à fibre optique chaque semaine, mais nous avons pour le moment décidé de nous associer en Afrique de l'Ouest afin de pouvoir répondre immédiatement à la demande des entreprises », déclare Nic Rudnick, PDG du Group Liquid Telecom.

L'accord permet à Liquid Telecom d'offrir aux entreprises des services à vitesse Gigabit accompagnés d'accords SLA négociés et d'un excellent service client 24/24 et 7j/7. Les pays additionnels dans lesquels Liquid Telecom sera désormais présent

Liquid Telecom a exigé des entreprises de l'Afrique de l'Ouest pour le service à large bande de l'entreprise. (Photo: xiaoliangge/adobstock)

sont le Bénin, le Cameroun, Le Congo Brazzaville, le Ghana, la Guinée-Bissau, la République de Guinée, la Côte d'ivoire, le Libéria, le Nigéria, le Soudan, le Sud-Soudan et le Swaziland.

L'accord avec Liquid Telecom donne à MTN la capacité de servir ses entreprises multinationales clientes au Burundi, en RDC, en Tanzanie et au Zimbabwe.

Ce partenariat révèlera de grands avantages pour nos clients. Nous serons à même d'exploiter les produits et services de l'un et de l'autre afin d'améliorer nos offres aux opérateurs et entreprises clientes en Afrique, au Moyen-Orient et en Europe. En outre, nous avons l'opportunité d'offrir nos services clients au-delà de nos empreinte, grâce aux empreintes cumulées des deux entreprises, ainsi que celle de nos partenaires. De plus, ce partenariat renforce notre offre extensive de services par pays et à l'international, » déclare Elia Tsouros, Responsable des ventes de la division commerciale de l'entreprise.

Unitel signe de nouveaux accords

AU MOIS D'AOÛT, l'opérateur privé angolais Unitel a signé deux nouveaux accords de partenariat en vue d'étendre ses services au Burundi et au Luxembourg.

Un communiqué de presse adressé à Angop publié mardi indique que l'opérateur national, à travers un accord avec Orange, a délivré le Service d'itinérance GPRS au Luxembourg.

Grâce à ce partenariat, l'opérateur national permettra à ses clients de profiter du service prépayé lors de leurs voyages vers cette destination européenne. Cette option se joint au VoIP prépayé et aux services prépayés CAMEL, également disponibles au Luxembourg.

Au Burundi, Unitel a également renforcé le signal du service prépayé en devenant partenaire de l'opérateur Smart/Lacellé.

Visite en Somalie-Djibouti en vue de renforcer la coopération bilatérale des télécommunications

LES MINISTRES DES Postes et Télécommunications de Somalie et Djibouti, H.E. Abdi Ashur Hassan et H.E. Abdi Youssouf Sougueh, ont prononcé une déclaration commune lors d'une visite officielle de quatre jours du ministre somalien à Djibouti.

Le principal objectif de la visite de quatre jours du ministre et de sa délégation était de renforcer la coopération bilatérale entre les deux pays dans le domaine des postes et télécommunications.

Certains des points soulevés dans la déclaration commune sont tels que suit : rappel de la coupe du câble sous-marin près de la station d'atterrissage de Mogadishu, qui a empêché la connectivité dans de nombreuses zones de Somalie ; les deux ministères reconnaissent le besoin d'au moins une connexion de câble optique sous-marin supplémentaire vers la Somalie. Les deux ministères se sont accordés en principe pour la reprise et la progression des discussions entre les gouvernements de Somalie et de Djibouti, et les opérateurs télécom de Somalie et Djibouti Telecom sur le câble Djibouti African Regional Express (DARE), qui connectera Djibouti et Mombasa avec de nombreuses stations d'atterrissage en Somalie.

Les ministres se sont accordés pour favoriser et renforcer la coopération entre les ministres dans diverses régions, telles que : l'inter-connectivité régionale, la fibre optique terrestre, la cybersécurité, les règlements TIC, les problèmes de signal transfrontaliers, la gestion du spectre et le plan de numérotage, etc.

Les ministres se sont accordés pour convoquer une réunion entre les responsables des deux gouvernements, les opérateurs de Somalie et Djibouti Telecom dans un futur proche.

H.E. Abdi Ashur Hassan a déclaré que la récente coupe du câble sous-marin a prouvé que l'économie en redressement de la Somalie nécessite un autre câble de redondance de toute urgence.

« Afin d'agir de manière proactive, il nous faut procéder aux discussions en vue d'un nouveau câble. Djibouti est un partenaire idéal à cet égard car huit câbles de fibre optique sous-marins atterrissent à Djibouti », a ajouté le Ministre.

La Namibie : Eenhana reçoit sa propre « maison de service mobile »

MOBILE TELECOMMUNICATIONS LIMITED (MTC) a ouvert un tout nouveau magasin à Eenhana, en Namibie, qui sera le 33e magasin du pays à proposer une gamme complète de services MTC.

Selon MTC, le magasin a été commissionné au coût de 77 866 US$, et se trouve au Centre Ewaneno, Shop 1, Sam Nujoma Drive.

MTC has opened a brand new shop in Eenhana, Namibia. (Photo: wikimediacommons)

Auparavant, les résidents d'Eenhana et des environs devaient soit se rendre à Ondangwa ou à Oshikango Mobile Homes, une distance de près de 70 km dans chaque direction, afin de profiter des services.

« Comme toujours nous nous concentrons sur notre philosophie client, et promettons de fournir des services de télécommunications de qualité à tous nos clients où qu'ils soient, grâce à des idées progressistes et novatrices soutenues par un excellent service ; l'ouverture de la 'maison mobile' témoigne de cet objectif », déclare Tim Ekandjo, Responsable des ressources humaines et des affaires commerciales chez MTC.

Ekandjo ajoute que Eenhana Mobile Home repose directement sur la vision stratégique la plus récente à laquelle souscrit son projet 081Every1, cherchant à assurer une couverture du réseau de 100% de la population au cours des deux prochaines années.

MTC, avec son propre réseau de Mobile Homes, compte également sur 60 distributeur principaux et plus de 3000 petits détaillants, vendant une gamme diverse de services MTC à une base client forte de deux millions depuis leurs agences, et fournissant une empreinte inégalée pour les services MTC à niveau mondial.

Getting creative with power solutions

Renewable and hybrid power systems could assist telecoms operators in some of Africa's more challenging territories. While major economies - the likes of South Africa and Egypt - have better coverage, the lack of energy in many poorer states remains a big challenge in the roll out of new, reliable telecommunications infrastructure.

AFRICA'S ERRATIC POWER systems have long tested telecoms operators across the continent. That's especially true in very remote or inaccessible locations.

Renewable energy and various other tech-based hybrid solutions are already starting to provide some answers.

While Africa's national electricity grids are still heavily dependent on more traditional fuels - coal, gas and hydro - clean and green power is starting to make an impact. Again, this is evident in more remote, off-grid areas, of which there remain plenty in Africa.

The use of diesel generators (gensets) is still a common site across the continent, but the search is on for alternative and potentially cleaner and cheaper options.

French oil giant **Total** combines its expertise in supplying diesel and solar energy to offer unique solutions for emerging market cell sites. The group also owns **SunPower**, a leading solar power company which has installed more than 3,000 pure solar and solar hybrid telecom sites.

It reckons the case for dedicated solar-based power solutions is strong, especially for smaller sites. Such remote cell sites are sometimes difficult to supply with diesel at reasonable logistical costs, which creates an opportunity for 100 per cent solar - always with batteries - at small sites up to 1kW.

Indeed, the use of renewable energy - solar power, especially - will be up for discussion at the forthcoming TowerXchange Meetup Africa summit in South Africa in October.

The event, which attracts hundreds of high level telecoms executives, takes place on 3-4 October at Johannesburg's Sandton Convention Centre.

While Africa's national electricity grids are still heavily dependent on more traditional fuels - coal, gas, hydro - clean and green power is starting to make an impact.

Operators are challenged in rolling out new, reliable telecommunications infrastructure. (Photo: LoweStock/Adobestock)

Among the power companies at last year's event were genset leaders such as **FG Wilson,** which has become adept at accommodating new and innovative hybrid solutions alongside its own power plant and equipment.

Another notable player is **PRAMAC**, which, together with its local partners, has installed over 10,000 generators in Africa to serve telecom needs. Increasingly, this has meant embracing power supply options that offer reduced fuel consumption, lower operating costs and fewer maintenance trips in the field, all key demands of telecom operators.

For PRAMAC, this has resulted in new solutions which allow the coupling of traditional AC diesel genset with an energy storage system. The heart of the system is the Hybrid Module which integrates state-of-the-art power electronics with top class battery technologies, such as lithium.

Another solution is its Hybrid Qube, a cubic 10' container specially designed to easily accommodate 10-45 kVA gensets interchangeably. The system can be configured simply to meet a broad range of power needs for telecom applications, offering flexibility and security, along with a plug and play configuration that's also ideal for remote installations.

These and other leading players continue to find new and innovative solutions for one of Africa's perennial problems, delivering reliable and affordable power in support of telecoms and other critical infrastructure. ✆

Martin Clark

66 The Mobile Payments infrastructure, provided by operators, is now as important to the country's commerce, as Visa/MasterCard/AMEX processing is in the Western world."
-Shane Leahy
CEO
Tola Mobile

66 While it's inspiring to see the boom in internet access in Rwanda, many Rwandans are still stuck in the walled gardens of subsidized services and haven't experienced the full diversity of the open internet."

-Jochai Ben-Avie
senior global policy manager
Mozilla

66 The acquisition and the decommissioning of duplicate infrastructure will help operators meet growing consumer demand whist ensuring network expansion is done in a sustainable and responsible way."
-Kash Pandya
CEO
Helios Towers Africa

66 The strength of our commitment will be demonstrated through a dedication to partner enablement, services and solutions that can generate new opportunities and business."
-Paul Eccleston
CEO
Nuvias

66 PayU Subscription allows merchants to improve customer satisfaction by offering a more convenient way for their customers to pay for their subscriptions and other recurring bills."
-Juliet Nwanguma
country manager
PayU Nigeria

66 Demand for cloud services is increasing exponentially across Africa as organisations look for greater agility, flexibility and security to grow their business."

-Nic Rudnick
group CEO
Liquid Telecom

66 The continued depreciation of the South African Rand has had a crippling effect on IT budgets in general."
-Mervin Miemoukanda
senior research analyst
International Data Corporation

Fact or fiction? Mission-critical myths about DDoS attacks

Bryan Hamman, Arbor Network's territory manager for sub-Saharan Africa discusses the risks faced by South African businesses targeted with DDoS attacks and the myths associated with them.

FOR ANYONE IN 'denial' about the power of Distributed Denial of Service (DDoS) attacks in South Africa - attempts to exhaust the resources available to a network, application or service so that genuine users cannot gain access - let's take a quick browse through some local headlines from the recent past. A quick search brings up the following:

"SA ranks high for DDoS attack concerns" (July 2014)

"SA a target for DDOS" (May 2015)

"South African IP addresses appear on massive DDoS-for-hire list" (September 2016)

CAPTION: Bryan Hamman, Arbor Network's territory manager for Sub-Saharan Africa (Photo: Arbor Network)

Let's dissect some DDoS myths.

South Africa is not a major target for DDoS attacks

The above headlines definitely argue otherwise. No business entity can afford to be complacent: in today's cloud-based, always-on business environment, DDoS attacks can pull down an organisation's online systems and bring workflow and mission-critical processes to a halt. In the process, of course, reputation becomes a casualty.

DDoS attacks are the latest weapon in the hactivist's arsenal

No, DDoS attacks have been around since 2010 or so. Since then, we've seen an increase in DDoS attacks that has led to innovation in the areas of tools, targets and techniques. Today, DDoS has evolved into a series of attacks that include very high volume attacks which cause congestion, as well as attacks that are more difficult to detect, as they target applications as well as existing security infrastructure such as firewalls and IPS.

Small organisations are not at risk

Not true. Over the past few years, the world has seen crippling attacks on all types and sizes of organisation, from corporates to small businesses, banks, hospitals, governments, schools and universities and even non-profit organisations.

We have a firewall

Traditional perimeter security solutions are vital aspects of an integrated security set-up, but they are not designed specifically to cater for DDoS attacks. Attackers look for gaps in traditional security solutions and take advantage of networks that are left unguarded.

We just increased our bandwidth, we are fine

It's unlikely that anyone has enough bandwidth, especially when we look at some of the latest statistics: Arbor's 2017 Annual Worldwide Infrastructure Security Report has confirmed attacks of 800 Gbps in scale. This is a 60 percent jump on the previous year's largest reported attack, and they are predicted to only get worse in the future. Bandwidth alone will not save your network.

So much for some of the DDoS myths. The fact is that DDoS attacks are growing in scale and sophistication all the time. Arbor research shows that more than a quarter of all DDoS attacks are actually used as a diversion tactic to cover up data theft, as attackers use a combination of techniques.

Unfortunately, many organisations only address the issue of DDoS protection after they have been hit, when the damage is done. As well as direct financial losses, a DDoS attack can bring additional costs to recover from an attack, supply chain disruption, and brand damage and loss of consumer trust. It's critical to ensure that your business implements specialised DDoS protection as a key component of your security solutions.

After all, you don't want your business making headlines for all the wrong reasons, right? And that's a fact. ✆

Smarter banking solutions for Africa

Digital innovation has transformed the way consumers pay for goods worldwide. Liquid Telecom Payments Solutions looks at why it is important for African businesses to remain ahead with the latest payment solution trends.

THE GLOBAL PAYMENTS ecosystem has changed beyond recognition in recent years as digital solutions have flooded the market and transformed how consumers pay for goods.

Online, mobile and contactless cards are now a firm part of the mainstream consciousness and will continue to play a prominent role in the future of payments. According to analyst firm Juniper Research, nearly three billion users will access retail banking services via smartphones, tablets, PCs and smartwatches by 2021, up an astounding 53 per cent from this year.

Competition continues to heat up in the mobile payments space. Just a few years ago, Apple was the only major mobile wallet available on the market. Today it faces growing competition from Google and Samsung as well as a plethora of big brands – from American Express, Mastercard and Paypal through to Walmart and Vodafone. Enormous growth is still expected to come - mobile payments are estimated to triple over the next five years, growing to US$148bn by 2021, according to research and advisory firm Forrester.

The fintech start-up scene has also played an exciting role in disrupting the global payments industry. A loosening of regulations in countries such as the UK has allowed a new generation of challenger banks to emerge on the market. Untarnished by the global financial crisis and free from legacy IT systems, many are exploring an Open Banking model that allows third party developers to create apps and services around a financial institution.

From payments security and mobile point of sale (mPOS) through to digital remittances, app-based innovation is also creeping into many other areas of banking.

Keeping ahead of innovation

Liquid Telecom has been leading the way with innovation in the payments space in Africa through its subsidiary Liquid Telecom Payments Solutions.

With more than 20 years of experience in the African payments market, Liquid Telecom Payment Solutions today provides end-to-end solutions tailored for businesses of all sizes in Africa's financial and retail sectors.

As well as offering the latest state-of-the-art mobile, in-store point of sale (POS) terminals, Liquid Telecom Payment Solutions can also

New mobile payments are quickly emerging across Africa. (Photo: Olly/Adobe Stock)
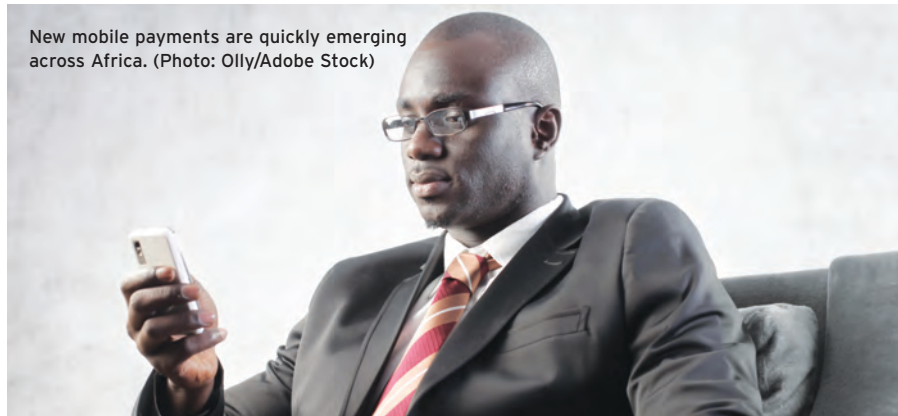
provide integrated tills and fully-servicing ATM machines. Following a customer transaction, Liquid Telecom is then able to offer behind the scenes support - including transaction processing and comprehensive financial reporting.

This could support, for example, a large bank looking to improve client identification and transaction processing, or a small business looking to efficiently manage its cash flow.

In the last year, Liquid Telecom Payments Solutions has introduced a new white label product that enables businesses in the region to integrate various wallet programmes and services. Mobile Financial System Platform is currently helping African businesses create a new ecosystem of collaborative mobile financial services.

A technological leap

Now Liquid Telecom Payment Solutions is looking to support businesses further with their payment solutions needs by bringing an innovative payment terminal solution to select markets across Africa for the first time.

As one of the leading and most innovative global payment terminal solutions supplier in the world, PAX Technology has enjoyed sustained success in recent years and is today driving demand for Android-based point of sale terminals. With more than 17 million PAX terminals deployed in over 100 countries, Liquid Telecom Payment Solutions is now exclusively offering the PAX terminal range to African businesses of all sizes.

Like the technological leap to smartphones, the move to a smart POS terminal brings with it access to a vast selection of apps that can help businesses drive efficiencies and save costs.

Smart POS terminals, such as the PAX A920 mobile tablet and E-Series portfolio of new generation cash registers, present businesses with a variety of value added services, which are unavailable on traditional POS terminals. Customer rating apps, for example, enable consumers to rate the level of service when paying for a bill, while app-based communications between call centres and merchants can reduce the cost of calls for businesses.

Through the PAXSTORE, an appstore platform on Amazon Web Services, banks can create their own independent marketplace for merchants to download their apps. This offers banks potential new revenue streams from distribution of apps, while merchants receive enhanced functionality and a more user-friendly payment terminal.

Android smartphones played a key role in the meteoric rise of mobile payments in China. The country today leads the world when it comes to mobile payments, thanks in part to the success of mobile wallets offerings from the likes of Alibaba and Tencent; best known for its social media platform WeChat. This in turn led to an increase in demand for Android-based terminals to support these android-based e-wallets.

While new mobile payment systems are emerging thick and fast across Africa, the region is yet to unlock the potential of mobile payments on a scale seen in China. A more advanced and open payments ecosystem looks set to change that soon. ✆

To learn more about Liquid Telecom Payments Solutions, visit:
www.liquidtelecompayments.com

ENTER

We take care of payments, so you can take care of business.

Payment solutions. Whether you're a financial institution, mobile money operator, retailer or merchant, biller or revenue collection agent, or a system aggregator, they're a necessity. But Liquid Telecom Payment Solutions can turn them into your business advantage.

We provide end-to-end solutions that start at the very moment of transaction – from the ATM, mobile, in-store POS terminal or integrated till system in retail outlets – and include everything from transaction processing to comprehensive reporting.

Unlike using multiple suppliers to provide your hardware, software, networking and support, you get one point of contact that does it all - for a more responsive, reliable and secure solution, no matter the size of your business.

The result is you spend less time and effort looking after payment solutions in your business and more time doing what you do best: growing it.

Contact us to discuss your needs on +263 8677 033 033 or email ltpssales@liquidtelecom.com

LIQUID TELECOM

www.liquidtelecom.com/payments

Delivering tailored telecom technology solutions

In an exclusive interview with *Communications Africa,* Bankai Group CEO Bankim Brahmbhatt provides an insight into Panamax's position as a leader in the telecommunications marketplace through the delivery of tailored solutions to customers.

How does Panamax stay ahead in the market using new technologies?

Panamax has been serving the telecom industry for the past 16 years and in all these years, it has constantly strived to keep innovating with the technologies it offers. We have received awards from several esteemed industry experts for our innovative technological capabilities. Our prime focus has always been to make our technology agile. Rather than just selling and pushing our technology in the market, we used them for our own business initially. Today, our technologies are market-proven and we have 100+ happy customers with us. We are also coming up with several projects where we will act as a service provider, backed by our own technologies.

In what ways are your turnkey and telecom technology solutions tailored to meet the needs of different projects?

We offer comprehensive portfolio of solutions to help deliver high-quality voice services that drive increased satisfaction for the customers. We leverage our network and extensive experience in the telecommunications industry to deliver high-quality services to our customers.

The services offered by Panamax Inc. are categorised into three sectors – BSS (Business Support System), NSS (Network Switching Subsystem) & MFS (Mobile Financial Solutions).

The BSS solutions enable carrier service providers to optimise development and deployment costs while supporting operators during every phase of the customer lifecycle.

NSS solutions on the other hand support telecom players to achieve financial and operational excellence through Unified Communications,

VoBB, IP Telephony, Switching, Transcoding & Conference solutions.

MFS solutions empower telcos, mobile money service providers, banks and retailers so they can focus on mobile financial services with our scalable and secure solutions. Our omni-channel mobile banking, mobile money, wallet, top-up & bill payment solutions integrate e-commerce, m-commerce and proximity gateways into a single robust platform offering greater flexibility and scalability to businesses.

Our products & services remain in line with the market trends through product innovation and commercially viable business models supporting long gestation periods. They are scaled and offer effective fraud management, revenue assurance while saving huge Capex and Opex by improving operational efficiency.

What according to you are the biggest trends wholesale market is witnessing?

A sizeable part of the industry believes that the wholesale business is going through a tough phase with conventional methodology taking a backseat. However, in my opinion this is a phase of overhaul. With VoIP services becoming mainstream, more and more calls are happening over the Internet. This gives hope to the small carriers and to make the most of it, they must keep innovating with their services and technology. The trend is also boosting several regional carriers to venture ahead and Bankai Group would like to invite those carriers in order to add value to their services by equipping them with the right technology. This trend looks to further grow with more retailers adding to compete with operators. I believe that the carriers will have the upper hand in this scenario if they forego the traditional ways of doing business and continue innovating while adopting new technology and devising new ways to add more and more subscribers.

Bankai Group CEO Bankim Brahmbhatt. (Photo: Bankai Group)

How strong is your presence in Africa and are you looking to expand in certain countries?

Africa, as we see is an emerging market with immense growth potential. We already have strong foothold here with names like Sudatel, Qcell, Sonatel as our esteemed clients. We are targeting all the developing countries across Africa, with primary focus on Gambia, Senegal, Sudan, Egypt, Kenya and Morocco. Panamax realises that these countries have tremendous requirement for robust, modular and scalable models that we offer through our extensive product portfolio. ✆
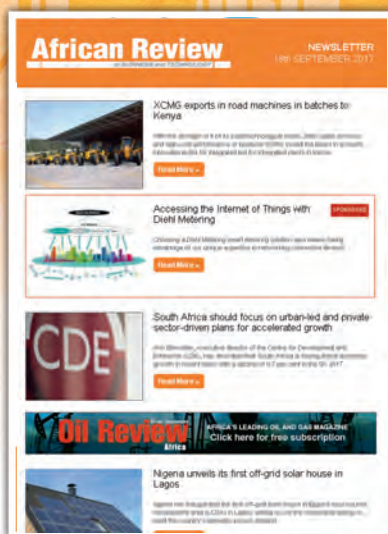
FG Wilson will install 19 x 1700 kVA and 2 x 800 kVA generator sets at Skyland Istanbul.

FG Wilson reaches for the sky

In many parts of the world, seismic certification is becoming a key requirement for generator sets, especially when they are installed in large buildings or facilities in urban areas.

FG WILSON DISTRIBUTOR FGW Jenerator Turkey recently achieved full IBC seismic certification as part of a project to install 19 x 1700 kVA and 2 x 800 kVA generator sets at Skyland Istanbul, the second largest construction project in Turkey. The site includes two towers almost 300 metres high, the 7th tallest buildings in Europe / CIS which are part of a huge office complex, shopping mall, a residential tower and 5 star hotel.

FG Wilson P1700 and P800 generator sets were manufactured in Larne, UK, then tested and certified in Rome in July 2016 at the only shaker table test facility outside the USA able to accommodate machines of this size. The test included a 30 second seismic shake, after which the generator sets were started up and functioned normally. To demonstrate reliability

The site includes two towers almost 300 metres high, also the 7th tallest buildings in Europe.

and performance after the seismic test, the generator sets were then returned to FG Wilson's Larne facility, which houses Europe's largest testing and development facility for generator sets, built at a total investment of $26mn.

FG Wilson's Larne facility houses Europe's largest testing and development facility for generator sets.

Project requirements include sound-insulated container type enclosures incorporating seismic specification for the larger generator sets, synchronization system, Scada and energy management system, fuel automation system and critical silencer. Strengthened baseframes and control panel stands and seismic anti-vibration mounts were specially engineered into the generator sets at the Larne facility.

This is the first time FG Wilson have achieved seismic certification for large generator sets and is believed to be the first time a generator set powered by a Perkins 4000 Series engine has achieved full seismic certification.

Speaking about the installation, Koksal Er,

CEO of FGW Jenerator Turkey said, "We closely monitor urban transformation trends and we've been actively participating in many major power projects in Turkey and especially in Istanbul. Skyland is an Eroğlu Real Estate project which is located in a premium area of Istanbul and its architect is globally recognized Brodway Malyan. We are very pleased to provide uninterrupted energy to this major project in which only the best materials are used."

Ann Brown, managing director of FG Wilson said, "This is a wonderful endorsement of the quality and durability which are designed into generator sets from FG Wilson. We're delighted that FGW Jenerator Turkey are successfully participating in very demanding projects of this kind with our products. This project really highlights how closely we co-operate with our dealers in terms of sharing expertise and resources. It's an outstanding team effort for the benefit of our customers."

FGW Jenerator Turkey have represented FG Wilson since 2005 and are a full service dealer, with a strong focus on large and complex projects from initial design through to installation, commissioning and aftermarket support. The dealer is based in Istanbul-Umraniye, with regional offices in the Marmara, Aegean, Mediterranean, Central Anatolian and Black Sea Regions and Northern Iraq in Erbil. ✆

L'impact des prix élevés des données, des connexions peu fiables et des vitesses lentes sur les services en continu

Une nouvelle World Wideband Speed League fournit de nouvelles données pour alimenter le débat au sujet des pays en Afrique qui disposent d'une connexion rapide afin de faire des services de transmission en continu une réalité. Russell Southwood choisit les données pour obtenir des réponses.

LA WORLD BROADBAND Speed League est un classement issu des recherches menées par l'Open Technology Institute de New America, Google Open Source Research et Planet Lab de l'Université de Princeton.

Dans un grand nombre de pays à l'échelle mondiale, elle a mesuré la vitesse générale et le temps qu'il faudrait pour télécharger un film de 7,5 Go. Les tests ont porté sur les connexions à large bande fixes, dont l'Afrique ne dispose pas encore en grande quantité.

Cependant, lors des tests, ces pays devraient - tout le reste du réseau étant égal - avoir une meilleure performance que leurs équivalents mobiles. Quiconque a utilisé des réseaux 4G en Afrique sait que le problème n'est pas qu'une vitesse élevée ne peut être obtenue, mais que cette vitesse de connexion n'est pas stable. La qualité de la connexion - avec des coupures de connexion - reste un problème majeur.

Netflix conseille aux utilisateurs qu'ils doivent avoir une connexion de 0,5 mbps et recommander une connexion minimale de 1,5 mbps à partir d'un fournisseur de large bande et 3 mbps pour la qualité SD. D'autres opérateurs de transmission en continu ont des conseils variés entre 1 mbps et 6 mbps, la figure supérieure étant destinée à la transmission en continu des vidéos de qualité de haute définition. Ainsi, la barre d'accès à la transmission vidéo en continu est nettement inférieure à 10 mbps, mais la connexion doit être stable si vous ne voulez pas avoir un problème de photos bloquées.

La Ligue compte 39 pays d'Afrique (voir ci-dessous) et nous avons inclus quelques-uns des pays fournissant les connexions les plus rapides pour donner un point de comparaison. Trois pays atteignent à peine la barre d'une connexion de 0,5 mbps : La RDC, le Burkina Faso et le Gabon. Cependant, les autres pays ont mis en place des vitesses sur les connexions fixes qui prendront en charge la transmission en continu.

Ces connexions sont désormais reliées à une station d'atterrissage internationale et disposent d'une fibre qui les associe à la capitale Kinshasa. Mais étant donnée que l'opérateur OCPT qui exploite le lien vers la capitale est incompétent, il existe un pourcentage très faible de temps de fonctionnement effectif. En effet, le satellite demeure une technologie importante pour la connectivité des données à l'intérieur et à l'extérieur de la capitale.

Le Gabon pourrait encore s'améliorer au niveau de la Ligue dans le cadre des tests futurs étant donné que Group Vivendi Africa (GVA) a récemment signé un accord pour les fibres aériennes avec l'utilitaire électrique SEEG.

Certaines des surprises sur le tableau sont des pays à l'est tels que l'Ouganda, le Rwanda et la Tanzanie et les pays de la côte ouest tels que le Sénégal, la Côte d'Ivoire et l'Angola. L'Ouganda opère aussi bien que le Liberia (les chiffres affichés sont en mbps)

La recherche a également examiné le temps qu'il a fallu pour télécharger un film de 7,5 GB et les dix pays en Afrique avec la pire connexion sont indiqués ci-dessous. Des tests de vitesse de ce genre montrent que le téléchargement de VSD ne serait pas possible dans un éventail beaucoup plus large de pays:

En juillet, Netflix a ajouté l'Afrique du Sud aux pays qu'elle inclut dans son analyse. Dans sa première liste, l'Afrique du Sud a été classée 54ème sur les 59 pays de la liste. En termes de fournisseurs individuels, Cool Ideas était le plus rapide avec une vitesse de 3,73 mbps et Neotel, le plus lent avec une vitesse de 1,57 mbps.©

Vitesse de téléchargement pour dix pays africains

1	Malawi	18.3 heures
2	Libya	19.1 heures
3	Guinea	20.1 heures
4	Mali	20.1 heures
5	Benin	23.2 heures
6	Congo B	23.3 heures
7	Somalia	27.2 heures
8	DRC	31.1 heures
9	Burkina Faso	34.5 heures
10	Gabon	41.1 heures

La ligue mondiale de vitesse à large bande pour 42 pays africains

1	Singapore 55.13		22	Ethiopia 1.34
2	USA 20		23	Djibouti 1.25
3	Kenya 8.83		24	Togo 1.24
4	Seychelles 5.84		25	Cote d'Ivoire 1.22
5	Morocco 4.38		26	Egypt 1.22
6	South Africa 4.36		27	Senegal 1.17
7	Tunisia 3.5		28	Algeria 1.11
8	Madagascar 3.49		29	Sudan 1.1
9	Nigeria 3.15		30	Botswana 1.07
10	Zimbabwe 2.49		31	Angola 1.05
11	Zambia 2.45		32	Cameroon 0.97
12	Ghana 2.3		33	Malawi 0.92
13	Liberia 2.12		34	Libya 0.89
14	Uganda 2.12		35	Guinea 0.84
15	Rwanda 2.11		36	Mali 0.84
16	Cape Verde 2		37	Benin 0.73
17	Namibia 1.81		38	Congo-B 0.72
18	Mauritania 1.54		39	Somalia 0.62
19	Mauritius 1.53		40	DRC 0.55
20	Tanzania 1.49		41	Burkina Faso 0.49
21	Mozambique 1.45		42	Gabon 0.41

Cybersecurity and the Future Model: Implications of the 4th Industrial Revolution

Industry leaders presented a wide range of topics and case studies at the Cyber Security in Banking Conference held in Johannesburg, South Africa recently, highlighting the latest trends and developments in cyber security.

THE EVENT OFFERED a comprehensive and multi-faceted agenda relevant to all banking and financial services professionals in the cyber security industry. It welcomed Tunde Ogunkoya, consulting partner, **DeltaGRiC;** Steve Jumps, head of security, **Telkom**; Kris Budnik, partner/director: Cyber Africa; **PwC**; Phillip Nicklos, director: Technical Services, **Authlogics**; Godfrey Kutumela, sales and product development, **Curve Group**; Bernard Ford, chief executive Officer, One Channel; Guy Venter, regional representative of Southern Africa, **Daon SA;** Candice Sutherland, business development underwriter, **Itoo Risks;** Craig Rosewarne, managing director, **Wolfpack Information Risk.**

Local cloud specialist **One Channel** addressed delegates at the conference, highlighting the opportunities of using technology in the fight against cybercrime in the banking environment. The company's CEO Bernard Ford showed how businesses can prepare for the 4th industrial revolution and the implications there of, and also presented the future model of Cybersecurity.

Financial services institutions need to incorporate a more agile cyber risk management approach.

He warned that organisations can no longer operate in isolation in the convergence era of the 4th Industrial Revolution. "We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another."

Ford pointed to the current cyber threat landscape and showed how Africa is being impacted by global threats. "WannaCry, the worst cyber-attacks in history, affected more than 230,000 computers in at least 150 countries."

"It will take a concerted effort from both private and public sectors to fight cyber-crime and improve cyber security so that Africa's cybersecurity landscape can optimally contend with global standards," he added.

Financial services institutions need to

The Cyber Security in Banking Conference was held in Johannesburg, South Africa. (Photo: demerzel21/Adobestock)

incorporate a more agile cyber risk management approach, especially with the industry's high dependence on e-banking, mobile payments, and general cyber-operations.

He says the possibilities of billions of people connected by mobile devices, with unprecedented processing power, storage capacity, and access to knowledge, are unlimited. "And these possibilities will be multiplied by emerging technology breakthroughs in fields such as Artificial Intelligence (AI), robotics, the Internet of Things (IoT), 3-D printing, nanotechnology, autonomous vehicles and quantum computing."

The 4th Industrial Revolution has the potential to raise global income levels and improve the quality of life for populations around the world. To date, those who have gained the most from it have been consumers able to afford and access the digital world.

"Technology has made possible new products and services that increase the efficiency and pleasure of our personal lives. Ordering a cab, booking a flight, buying a product, making a payment, listening to music, watching a film, or playing a game - any of these can now be done remotely," he added. In the future, technological innovation will also lead to a supply-side miracle, with long-term gains in efficiency and productivity. Transportation and communication costs will drop, logistics and global supply chains will become more effective, and the cost of trade will diminish, all of which will open new markets and drive economic growth.

Major shifts on the demand side are also occurring, as growing transparency, consumer engagement, and new patterns of consumer behaviour force companies to adapt the way they design, market, and deliver products and services.

"It's no secret that technology has been advancing at a tremendous rate. This means that it is not only more powerful, intuitive and automated, but also more accessible, with companies offering software solutions that are now affordable for small to medium sized businesses - sometimes they're even free," he said.

Acumatica is a post-modern, true-cloud business system that takes advantage of the following trending technologies: blockchain security, IoT, artificial intelligence, multi-cloud and natural language interface to ERP.

Ford explained how they can implement large, complex systems in a fraction of the time when compared to legacy ERP systems. "Acumatica is a post-modern, true-cloud business system that takes advantage of these trending technologies including blockchain security, Internet of Things (IoT), Artificial Intelligence (AI), multi-cloud and natural language interface to ERP."

"The conference certainly equipped the financial sector with strategies and skills for successful operations in the cyber security space. We shared valuable industry insights and knowledge, addressed the latest developments in cyber security as faced by financial institutions, with particular emphasis on cyber resilience, cyber security culture, and talked about the protection of critical financial infrastructure, as well as risk mitigation strategies," he concluded. ©

Ivor van Rensburg

China's TRANSSION flourishes in Africa's smartphone market

Communications Africa speaks to Arif Chowdhury, vice president of TRANSSION Holdings about its expansion in Africa, the challenges facing the telecoms market and the company's success to date.

TRANSSION operates across the whole of Africa but are you working on any projects to expand further into Africa?
We have built three mobile phone production bases across China and Ethiopia. As the business has grown so has our infrastructure, and as a result the need for permanent site in Africa. This has allowed us to increase our distribution capabilities and improve lead times, enabling us to deliver the best service possible for our customers in the region and in turn invest in the local community, creating jobs and improving the regions infrastructure.

Currently, we are focused on the development of our industrial park in Ethiopia, but we are constantly reviewing the infrastructure requirements of our business and the need for any future facilities in the region will be based on the commercial needs of the TRANSSION group.

I understand TRANSSION has more than 246mn users globally. Why do you think you as well as other Chinese companies are becoming so successful across Africa?
As with entering any developing market, there are a range of infrastructure challenges that need be overcome. The strength of our distribution network and our ability to reach customers is a central pillar to any success of TRANSSION's business in the region.

In addition, the innovations we have introduced to our products have also been a major factor in enabling TRANSSION to capture such a significant proportion of the African market. For example, we introduced the dual-SIM-card phone after noticing how African users often carried different SIM cards and swapped them around because call rates between different telecom networks were more expensive than intra-network calls.

Finally, it's also worth referencing our high quality after sales service, which is vitally important in ensuring we can support our customers long after a purchase is made.

One of the challenges manufacturers are facing is the rising cost of materials and components for phones. How can this challenge be met?
We believe the key thing for TRANSSION's customers is ensuring we provide them with the best possible value. That means we develop phones that are of a high quality and

Arif Chowdhury, group vice president, TRANSSION

are competitively priced. That has been a key factor in the growth of TRANSSION to date and remains a central pillar to our business model. Similarly, we are also keen to understand what it is our customers need from our products and invest in research and development to ensure that we deliver innovations which enable our customers to make the most of our products each day.

What other challenges in the market are you seeing and how is this affecting market performance?
It was widely documented that 2016 was a slower year for the smartphone market in Africa, growing 3.4 per cent overall, according to a report from the International Data Corporation.

From a TRANSSION perspective we can only really comment on the dynamics we see at play in the market. From a macro point of view, some years are always going to be better than others, that said we have continued to see strong uptake in the African region for our products.

You have three different brands TECNO, Itel, and Infinix. How are they targeting specific customers? How are the handsets geared towards the African market?
TECNO, Itel and Infinix are all high quality mobile handsets designed specifically with the African consumer in mind. Each have unique design components, such as the dual-SIM, and they are competitively priced, meaning

TRANSSION is perfectly placed to meet the needs of all consumer segments.

TECNO is a premium brand and Africa's first dual-SIM product. Since its 2006 launch, TECNO has spread its presence in more than 40 countries across the world. Having sold more than 120mn units, TECNO is one of the top three mobile brands in Africa and a global major player in industry.

itel Mobile provides innovation for the masses, with a focus on an affordable yet advanced user experience. Launched in 2007, itel is now available in more than 45 countries globally, selling more than 50 million handsets worldwide in 2016 and establishing itself as one of the world's fastest growing mobile brands.

Infinix, a young brand which was launched just five years ago, offers cutting-edge technology and high-fashion design, with four product lines: ZERO, NOTE, HOT S, and HOT. Infinix is sold across Europe, Africa, Latin America, the Middle East and Asia.

TECNO recently launched Camon CX Manchester City Limited Edition smartphone in Nigerian outlets. How has this smartphone been tailored especially for Nigerian customers?
The Camon CX has been designed specifically for young, independent African people. It is the latest handset in our range and we have designed it with the selfie in mind. We have listened to customer feedback in Kenya and across Africa, and the overwhelming response has been that our consumers want phones that take high quality pictures with a device that is accessible and easy to use.

We believe the Camon CX will be the "Selfie Camera" for this market's generation. It will allow consumers to take brighter, clearer and faster selfies. The phone has the latest pixel technology to ensure selfies that are produced are 30 per cent brighter than with typical smartphone technology. This phone is designed with the selfie user in mind. We have introduced state-of-the-art visual technology which produce 30 per cent brighter images, resulting from 16 million-pixel sensors. The smartphone also includes features such as a customised ring flash, light speed charge and a 5.5-inch FHD (Full High Definition) screen, all allowing for ease of use on the go as well as the best quality images. ✆

Mobile broadband bridges the digital divide

Across Africa mobile broadband solutions are increasingly being rolled out as demand rises for mobile data and cloud services. The GSMA predicts there will be 550mn mobile Internet subscribers by 2020, however, 60 per cent of the continent's population are predicted to remain unconnected at that time.

Demand is rising for cloud services in Africa.
(Photo: BillionPhotos.com/adobestock)

EVERYONE WANTS ACCESS to the Internet, though across Africa, from urban, to semi-urban and onto rural and remote locations, that 'want' is easier expressed than serviced in some locales. Certainly, the benefits of the Internet to socio-economic development are clear, so delivering broadband to as many people as possible has become a priority for many governments across the continent. But in remote regions the practicalities of rolling out even just basic telephony services in Africa have, together with the viability of doing so, prevented millions from being connected in the past. It is only relatively recently that tech breakthroughs and cost improvements of such things as satellite bandwidth and long-range line-of-sight radio technologies have encouraged and enabled mobile operators to reach further into the rural heartlands of many countries to serve remote communities with voice and data services – but without losing their shirts.

Satellite services are one of the key enabling technologies delivering mobile broadband into these regions. Satellite broadband providers certainly see potential in a future when projections suggest Africa's population will reach close to 4.5bn and education will be crucial for socio-economic success and stability. Access to the Internet will be critical to educating children and adults alike across the region. However, almost 350mn people in remote regions across this continent currently remain unconnected. They exist on the other side of a digital divide that governments and telcos are now scrambling to bridge; for nowhere in Africa is connectivity for communities and businesses more crucial than in rural areas, where socio-economic inclusion continues to be challenging and the effect of a good education would have the most dramatic impact.

Bridging the digital divide

But although the digital divide will continue to exist for many for years to come, the GSMA predicts that over the next five years, 168mn new subscribers will be added to Africa's user base taking it to 725mn unique subscribers across all networks using the full breadth of 2G, 3G and 4G services. People are, however, increasingly moving to mobile broadband as LTE network roll-outs increase and the availability of smart devices improves. At the end of 2015 mobile broadband connections accounted for only 25 per cent of all new mobile connections but this will rise. Mobile broadband connections will account for a third of all new connections by 2020, according to the GSMA, though 3G will still be the predominant broadband-enabling mobile tech during this period.

In the first quarter of last year, MTN Nigeria had data traffic increases of 59 per cent and Vodafone Egypt registered a 73 per cent increase over the same period.

By 2020, out of all the IP traffic across Africa, mobile is expected to account for around 40 per cent.

One of the other key mobile-broadband-enabling factors in the coming years will be the availability of fresh spectrum. This is particularly relevant to the releasing of bandwidth in low-frequency bands below 1GHz. Policy makers across the whole region are under pressure to ensure such a spectrum is made available to the mobile operator community, so they can deploy

The GSMA predicts that over the next five years, 168mn new subscribers will be added to Africa's user base taking it to 725mn unique subscribers across all networks using the full breadth of 2G, 3G and 4G services.

and deliver more mobile broadband to the remaining unconnected millions in remote and isolated areas.

LTE on a Roll

As of this time last year the GSMA said there were 72 live LTE networks in 32 countries across Africa and together with the explosion in availability of affordable smart phones these factors accounted for the number of smart-phone connections almost doubling in the last two years, reaching some 226mn. Much of this uptake of mobile broadband devices and services was in more established mobile markets, including Egypt, Kenya, Nigeria and South Africa, although the GSMA indicated that relatively new 3G markets, like Algeria, Cameroon and the DR Congo also saw relatively high numbers of new mobile broadband connections.

From the Cameroon to Nigeria mobile broadband uptake and usage, enabled by the growing availability and affordability of smart phones, is behind the growth in mobile data revenues. Eighteen months ago MTN Cameroon had already reported a 62 per cent increase in data traffic. In the first quarter of last year, MTN Nigeria had data traffic increases of 59 per cent and Vodafone Egypt over the same period registered a 73 per cent increase.

The GSMA projects that a further 500mn smart phones will be connected across Africa by the early 2020s, which will lead to a knock-on boost to mobile data traffic and resulting revenues for all operators. in less developed markets the GSMA sees such revenues

As the availability of smart devices improve people are increasingly moving to mobile broadband. (Photo: Daniel Ernst/adobestock)

eventually accounting for around 15 per cent of total income generated in this period. In more advanced markets, however, such as Egypt and South Africa, the percentage that mobile broadband revenues will make up of the whole will be much higher.

Innovative offerings encourage use

Making the most of this new-found uptake of mobile broadband, the region's mobile operators are monetising their increasing data traffic by introducing a range of innovative new business models that are intended to stimulate data usage even further, particularly among low-income users.

MTN in Rwanda, for example, in partnership with mobile solutions provider, U2opia Mobile, launched its Fonepass sponsored data service, operational for the past 18 months, which targets users with limited or no access to the Internet. The service gives customers access to popular mobile apps such as Wikipedia, Binu and TripAdvisor without data charges, and by giving this access to users, the GSMA says it enables the operator to monetise its mobile data network while at the same time giving its subscribers more value.

No stopping mobile broadband growth

By the end of the five-year period to 2020, the GSMA, citing Cisco, says that mobile data traffic projected to grow across the wider Africa and Middle East region (not including Saudi Arabia), to more than 4 exabytes per month, which is a 16-fold increase on the 257 petabytes per month experienced during 2015. These figures and developments represent an average annual growth rate of just under 75 per cent. This is much higher than the global average of 53 per cent and underpins the long-held belief by many analyst houses that Africa continues to be one of the developing regions of the world with the greatest potential for mobile communications growth. By 2020, out of all the IP traffic across this region, mobile is expected to account for around 40 per cent, with mobile broadband users consuming an average monthly 4.3 GB by that time. With such projections, there can be no doubt that economic development will be positive and felt across Africa, as a result of the impact mobile broadband will continue to have on social progress. ✆

Tim Guest

Zambia: A new step towards digitalisation

TWENTY YEARS AGO, Multichoice, a South African broadcasting firm, entered the Zambian market and revolutionalised the television industry by dramatically improving the quality, variety and reach of television as a product (through DStv).

For many years this had a monopoly in terms of pay-TV, charging monthly subscription fees which the average Zambian could not afford. MultiChoice partnered with the national broadcaster, Zambia National Broadcasting Corporation (ZNBC) to form GOtv, an alternative which offers more affordable rates and has been embraced by many Zambians, thus enhancing the country's drive towards digitalisation.

Launched six years ago, the GOtv signal has gone on to cover 85 percent of the urban population where the service operates.

The government also contributes greatly towards sensitising and educating consumers about the concept of digital migration, which will spur the take-up of digital television services. It is also a great opportunity to bolster efforts of creating an informed Zambian society.

The market is now highly competitive with a number of players coming on the scene. There is Zuku (Kenya), Kwese (Ghana), and StarTimes which has forced the leader in digital broadcasting to slash

GoTv has been praised by Zambian's for its affordability. (Photo: gstockstudio/adobestock)

its subscription fees by some modest margins. There is also the local private TV station, Muvi TV, which is also offering pay TV services, taking the lead in producing local films and soaps.

StarTimes, a Chinese digital television provider, has also into a joint venture with ZNBC to establish TopStar, which is the official sole carrier of digital television in Zambia. TopStar is offering the cheapest decoder on the market (pegged at K99), with many citizens being accorded an opportunity to watch quality programming at a cheaper rate. The programmes cover both local and international channels, offering news, entertainment and sport, among others.
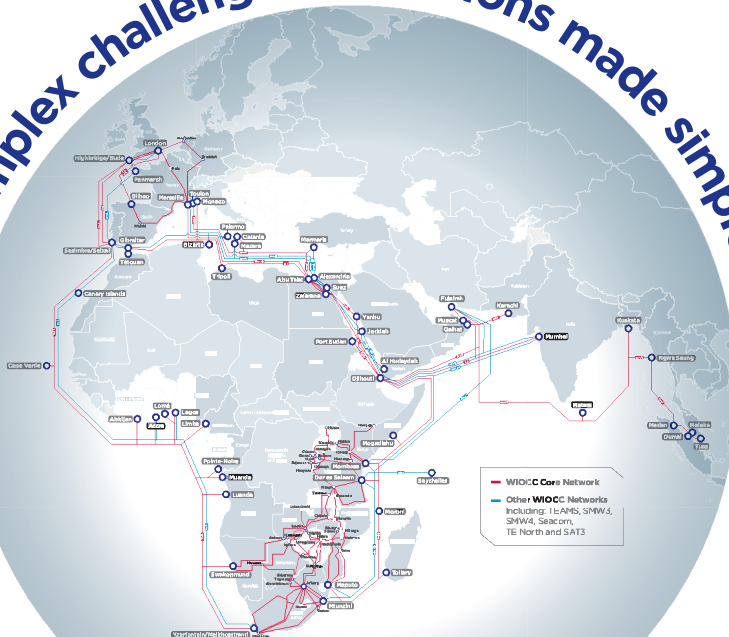
Quality of service remains a challenge in Ghana's ICT market

The Ghanaian ICT market is more mature in comparison to other West African countries. Yet quality of service (QoS) remains an increasingly difficult challenge to overcome, with telcos and Internet Service Providers (ISPs) struggling to offer seamless voice and data services.

THE INTERNATIONAL DATA Corporation (IDC) Ghana ICT Market Overview for 2017 notes that businesses who can guarantee excellent QoS will become the preferred mobile providers for both consumer and enterprise services.

According to Oluwole Babatope, senior research analyst for Telecommunications and IoT at IDC West Africa, the IDC expect more consolidation in the market as telcos and ISPs continue to seek partnerships to drive stronger competition. "In the short to medium term, mobile money services will be key to growing the customer base. We expect that multimedia and triple-play services will lead customer retention and acquisition strategies, especially as fibre connectivity improves nationwide," he explains. "Managed services are expected to grow, driven by requirements to reduce in-house data centre infrastructure costs."

Babatope notes machine-to-machine adoption is still limited to a small number of Ghanaian cities. "Telcos should invest in creating awareness of the technology's capability to help reduce costs, increase efficiency, and improve productivity. Case studies of successful local implementations should be highlighted." In his view, those telcos who offer value propositions that solve business challenges rather than merely implementing the latest technology will experience much greater success.

The Ghanaian cloud and managed services market is still in its infancy, offering growth opportunities for providers. "Those providers that can make the necessary investments to educate customers about the benefits of these services, based on strong value propositions, stand to harness the most opportunities in the market," he notes.

> **The Ghanaian cloud and managed services market is still in its infancy, offering growth opportunities for providers.**

The SME segment has long been neglected by telcos and service providers due to their limited budgets, internal IT capabilities and their tendency to seek a quick return on investment, as is the case in most African countries. "Despite these limitations, the SME market holds a big, uncharted opportunity for telcos," says Babatope. "It is, therefore, imperative for telcos to form partnerships with SMEs across verticals, gain an understanding of their business needs, and offer customised solutions within SME budget ranges. SMEs typically have short sale cycles and require support during and after sales."

The growth of mobile money transactions in Ghana will continue, but the trend is expected to extend beyond consumer to consumer (C2C) and, going forward, include business-to-business (B2B) and cross-border remittances. "Telcos need to specifically target SMEs and propose B2B payments for services. As mobile money matures, telcos, in partnership with Nigerian banks, will be well positioned to carry out cross-border remittances," he says.

Ghana's new government has shown it is determined to improve and expand ICT infrastructure in the country. "Ongoing government projects require investments in infrastructure, network and systems integration, data centres, custom software development and support services," says Babatope. "Concerns relating to bureaucracy and, more specifically, delayed vendor payments, mean that partnerships with the government should be structured for long-term benefits, rather than short-term gains."

IDC expects the Tigo-Airtel merger will present a trend and will be the first of many consolidations. "Differentiation will be key to remain competitive and for the enterprise market segment a vertical-driven approach will be the game-changer," he says. "Telcos, ISPs and IT service providers should develop a clear understanding of client requirements and create tailor-made solutions if they want to remain ahead of their competitors." ✆

The Ghanaian government has shown willingness to expand ICT infrastructure in the country. (Photo: Silken Photography/adobestock)

Africa's cities are becoming smarter

Cities across Africa are becoming smarter as technological progress and greater connectivity opens up a world of possibilities across the continent, from Kigali to Addis Ababa and many others besides. Tim Guest reports.

There's an Alliance for that

WITH THE GLOBAL technological trend to interconnect everything from cars, to buildings, machines to machines, transportation and more, it's no wonder there is a Smart Africa Alliance keeping its finger on the pulse of this revolution and helping to foster and drive the trend across Africa. The Alliance is a partnership bringing together all African countries committed to the Smart Africa Manifesto; it is supported by regional and global bodies, including the African Union, the International Telecommunication Union, the World Bank and the African Development Bank.

Rwanda is a good current example of the Alliance at work, where it is collaborating with the government and spearheading a smart cities agenda that has embarked on showcasing all the elements of the smart city to more than 300 senior local government officials from across Africa. Earlier this summer the Ministry of Youth and ICT established a tie-up with Inmarsat, announced by the Alliance at the time. This agreement with the global mobile satellite communications provider, is for the launch of a series of pilot digital service initiatives across the Rwandan capital that are intended to lead to closer cooperation and coordination to develop key ICT projects in line with Rwanda's National ICT strategy.

The pilots will last 12 months and their results will be used to develop blueprints for a range of digital services initiatives that can be applied more broadly across Rwanda and in other African nations. The tie-up with Inmarsat is all about identifying, developing and bringing to market solutions suited to Africa that are enabled by satellite connectivity. Inmarsat believes that the growth potential for Africa-developed solutions will be worldwide, offering exceptional opportunities in certain areas of smart cities applications. The programme aims to accelerate the deployment of IoT and smart city solutions and will also be replicated in other Alliance countries. Inmarsat was the first commercial company to join the Alliance, becoming a platinum member in 2016.

Ethiopian developments with a Chinese flavour

Moving on to Kigali, in Ethiopia, where smart city and ICT developments are gathering pace. Earlier this summer the government announced talks with Chinese ICT giant, Huawei to build the ICT industry in Ethiopia into a 'world standard'. Ethiopian prime minister Hailemariam Desalegn said at the time that Huawei was a very important partner that had invested in the country, citing its efforts in capacity building, localisation and training students as key factors in the relationship. Under the plans laid out, Huawei will cooperate with 36 universities in Ethiopia to provide ICT training leading to more than 1,000 Huawei-Certified ICT professionals. The company began operating in Ethiopia in 1999 with communications infrastructure tie-ups with Ethio Telecom supporting role outs of cellular communications across urban, semi-urban and rural areas of the country.

In June, the Ethiopian capital of Addis Ababa, a city renowned for having insufficient parking facilities, laid claim to being the first city in Africa to build a smart parking system in an effort to reduce urban congestion and parking problems. The facility cost some US$2.2mn to construct. Addis Ababa has previously taken progressive steps to optimise its transport system, constructing trams and metro trains across the city to offer as many options of transport to the public as possible. So far, the arrival of the smart parking system has been met with a positive response from city residents who are hopeful it will help solve the city's parking issues.

Huawei in the Smart City Mix

Ethiopia notwithstanding, Huawei has already become a key player in the smart-city future of Africa. At the end of Q1 this year, it was announced its 'Smart Transportation Solution' (ITS) to resolve ongoing traffic congestion issues, not just in Africa, but in major cities globally. However, the system, said to be the first of its kind, had already been unveiled earlier in Johannesburg for the commercial bus market. The company said that bus operators using the system can reduce maintenance costs, and offer additional value-added services and an overall improved travelling experience for customers. The system provides a wide range of safety and security services including real-time bus health data analysis, in-bus video surveillance, accurate passenger tracking, and emergency services communication, all made possible through the use of high-speed Internet connectivity on all buses.

The solution for buses launched in South Africa is the first in Huawei's ITS portfolio to enter the country, with applications for taxis, trains, and other forms of public transport expected in the future. ✆

Emerging markets needs data centres fast

Every day people around the world generate 500mn tweets, post 4.3bn Facebook messages and make 6bn Google searches, and the numbers rising. In Africa, this is driven by a young population and the continent has witnessed a huge increase in active mobile social users.

OF COURSE SOCIAL media is just one source of the data that is generated daily by businesses and consumers across the continent – data that typically needs to be managed and stored within a data centre, something that Africa is seriously short of. In fact, there is only one Tier-certified data centre in Africa for every 47mn people, compared to one for every 5.5mn people in Western Europe. And Africa's population is growing faster than any other continent on earth, the problem is only going to get worse.

So why is this actually a problem? Well, there are three critical issues:

1. Data security

This shortage of professionally built and maintained data centres means that much of Africa's data is stored in unsecured server rooms, often without adequate climate control, redundant power supplies, fire suppression capability or a host of other critical systems. All of these are vital to ensuring the integrity of a data centre and the optimal operation of the IT equipment it houses – essentially keeping data accessible and safe.

Of course data safety isn't guaranteed by simply ensuring that there is redundancy built in to guard against and overcome potential points of system failure. Physical security is also important to minimise the risks of data being tampered with, corrupted, stolen or completely lost, any of which could lead to serious damage to an individual or company.

So the risks of storing and managing data in sub-standard facilities are significant.

2. Data proximity

Equally problematic is the storing of data in facilities outside the African continent. It may well be kept in professional colocation facilities that do not have any of the security concerns outlined above, but the lack of proximity to Africa-based end users regularly results in unacceptable latency when attempting to access data. And in a world where businesses and consumers demand instant access to everything – particularly streaming media – these delays are frustrating for users and service providers alike.

Added to this, there is a growing push towards new laws mandating not only that companies conduct themselves responsibly when collecting, processing, storing and sharing people's personal information, but that this data must be stored on servers physically located within the country's borders. Nigeria has already implemented such legislation, Kenya is about to follow suit and a number of other countries are exploring similar rules.

So increasing the proximity of data to its ultimate users is critical from a customer satisfaction perspective and increasingly from regulatory perspectives too.

> **Physical security is also important to minimise the risks of data being tampered with, corrupted, stolen or completely lost, any of which could lead to serious damage to an individual or company.**

3. Lack of resources

The money, materials and precision equipment required to build modern data centres are very hard to find in Africa. The assumption is often made that standard brick and mortar buildings can be built or converted for data centre use. The reality though is that traditional construction methods are typically not adequate to house mission critical ICT infrastructure – especially in Africa where environmental and weather extremes can deliver significant challenges to even the highest specified facilities.

And Africa's data centre resource issues are not simply material. More significant still is the lack of local expertise, not only in designing and building new data centres but also in managing them on an ongoing basis. This skills shortage is actively being addressed, but it will likely remain a challenge for the foreseeable future.

Data centre boom

Regardless of the issues described above, the data boom that the continent has been experiencing for some time is now clearly fuelling an African data centre boom. New professionally built and maintained facilities are needed across the continent as a matter of urgency, and this is providing opportunities not only for the traditional players in the ICT world but also for entrepreneurs looking to establish entirely new service opportunities with dedicated colocation and data hosting facilities. The question is where these new facilities are going to come from?

The answer is prefabrication

The clear answer to addressing Africa's immediate need for more data centres is prefabrication.

Prefabricated data centres, such as Flexenclosure's eCentre, are built off-site in clean-room factories where they are also pre-equipped and fully tested before being deployed and commissioned in-country. In this way, construction costs and timescales can be managed with far greater accuracy and the data centres are built by a team of professionals highly experienced in delivering Tier-certified facilities – all of which contribute to significantly reducing project risk.

Traditionally constructed buildings' inherent inflexibility means that they are typically built over-sized in the hope that the business will ultimately fill it – an extremely inefficient use of capital. By contrast, the modular nature of prefabricated facilities allows capex to be more accurately managed during the initial build phase and to be tightly kept in line with the growth of the business over time. So future expansion can be undertaken exactly when the business needs greater capacity and without interrupting ongoing data centre operations. As a result, as they expand, prefabricated facilities can also take advantage of new technologies that may not have been available during the first phase of the project.

And critically, given Africa's immediate need for new data centres, a prefabricated approach will always deliver fully commissioned facilities in a fraction of the time it would take to build a traditional brick and mortar one. And that means faster service improvements for service users and faster time to revenue for service providers.

It's clear that Africa needs a lot of new data centres, and fast. The good news is that prefabricated facilities are clearly the right solution for Africa's short, medium and long-term data centre needs. ✆

Sybrand Pretorius, sales director, Flexenclosure.

Accessibility of data is an issue in South Africa.
(Photo: demerzel21/adobstock)

Radical data transformation

Forget growing the economy if data is not made affordable and accessible, or if app developers continue to disrespect phone users in South Africa, says Lorraine Steyn, CEO of KRS.

THERE IS CURRENTLY a lot of buzz around ICT4D – the Fourth Industrial Revolution. As wonderful and exciting as the possibilities are of what technology can facilitate for the advancement of mankind and Africa specifically, it will all fall short if the access to this revolution, is denied to the majority.

We are simply not going to get technology advancing in Africa unless data is more accessible and more affordable. It's a complete waste of time if nobody can afford it.

In July, we hit the streets and did a random survey of phone users, asking them how many apps they had on their phones, what kind of apps they downloaded on a regular basis and did they ever check their data usage. Since the people were poke to were all contract phone users, and therefore part of the already economically included and active citizenship, the question of tracking data didn't really seem to worry any of them.

However, when asking those on the other end of the economic scale the same questions, the answers speak for themselves.

Data is so expensive, that pay as you go phone users (the overwhelming majority of phones in SA), are more often than not, switched off for the bulk of the day (known as 'dead phones'), because there is a perception that the data gets sucked out even if you are not using it. This is an ongoing hotly debatable and contested subject, but hundreds of thousands of people can't all be wrong.

Additionally, if they do have a smartphone, nearly every week there is a new update

We are simply not going to get technology advancing in Africa unless data is more accessible

from an app provider – like Facebook for example. It might work for the Americans – but here? You want me to do yet another 100 Megabyte download to update the app I updated earlier in the month? Really! App developers just do not respect phone users in South Africa.

This is the crux of the matter – we can't have the cries for economic inclusion without having addressed access to data and its affordability. There is an incredible wealth of useful and life-changing material online, and information as to how we can learn and better our chances at gaining employment, or starting a business – but it's completely out of reach to the vast majority of our population.

We are part of BRICS, from whom we as developing countries, should learn lessons and share best practices, but few of these, if any, seem to have penetrated the South African communications landscape. Look at India for example – data as much as 3 Gigs a day, was given away for free. This caused a bit of a free for all, so the limit has now been reduced to only 1 Gig a day, but nevertheless, this still has the power to change India's ecosystem, and it has.

Previously Prevented People, now have the ability and wherewithal to freely download apps, and, it is no longer a problem being online and interacting in the digital realm. This has fast-tracked India's socio-economic development. So why can't it happen here?

While there are laudable efforts to pool people into 'trappable' areas – City of Cape Town, and Tshwane for example, that have free Wi-Fi access – it's ok for checking email and one's job application process (can't apply for a job without a phone these days), but we are still not bringing data to a student who could be studying to advance themselves at home, or to a would-be small business owner looking for information or the ability to market themselves or trade online.

Access to the Internet is a basic human right, as resolved by the United Nations in 2016, wherein it is recorded that: "States may not unreasonably restrict an individual's access to the Internet." Following this, by the cost of this access in South Africa, being too prohibitive and not widely available, does this mean those who control our data, are in breach of human rights?

This also plays to the UN General Assembly's third generation right: 'The Right to Development'. The importance of the Internet in stimulating a nation's development has been noted by academics, economists and activists. The more we advance into this 'Fourth Industrial Revolution', the less access to Internet, the less likely we will be able to properly participate, creating an even greater divide between those that have and those that do not, than ever before in the history of the world.

The impact of this 'connected economy' was summed up by Klaus Schwab, CEO and Founder of the World Economic Forum: "The app economy provides an example of a new job ecosystem. It only began in 2008 when Steve Jobs, the founder of Apple, let outside developers create applications for the iPhone. By mid-2015, the global app economy was expected to generate more than US\$100bn in revenues, surpassing the film industry, which has been in existence for over a century."

I cannot voice this strongly enough: without providing all our people with affordable and easy access to the Internet – wherever they may be – we can forget any form of economic growth – radical or not. ✆

Data in Africa can be so expensive that pay as you go phone users keep their handsets switched off. (Photo: Scanrail/adobestock)

AfricaCom: A digital future

AfricaCom, Africa's largest technology, telecoms and media event celebrates its 20th anniversary in November this year and will present thought-provoking content and innovative technology.

AfricaCom will take place in Cape Town, South Africa. (Photo: wikimedia)

THE EVENT, TAKING place from 7-9 November at the Cape Town International Convention Centre (CTICC), will open its doors to delegates and exhibitors across three days.

South African-based KNect365 has introduced a host of innovations of its own, including a Technology Arena that will explore the Fintech space, or e-health, education, energy, agri-tech or more.

A launch function for AfricaCom was recently held at Rosebank in Johannesburg. Some of the most progressive thought leaders and commentators on the continent from MTN, Google South Africa, Qualcomm, Rekindle Learning, Praekelt Consulting and etc participated. The Technology Arena will showcase new technology from more than 100 exhibitors, and will see AfricaCom 20/20. This is a brand-new show floor item dedicated to accelerating Africa's digital transformation, in full swing.

"2017 is a landmark for AfricaCom. Over the past two decades, we have grown from being a purely telecommunications-focused event, to a broader, digital communications show now hosting the foremost group of influencers involved in every aspect of the African digital ecosystem," explained Tom Cuthell, portfolio director of KNect365, the organiser of the event.

"As the digi-sphere continues to expand and impact every aspect of our personal and professional lives, AfricaCom has grown in scope to create a broad platform for everybody involved in powering the digital economy in Africa."

AfricCom has provided a stage for robust debate over the past two decades, as well as identifying the needs for Africa's growth and the solutions and subsequent policy making that has seen the continent leapfrog the desktop era, straight into mobile.

Namibia was named as the first African country to terminate analogue TV signals, with more than 3.8mn jobs being directly or indirectly attributed to the mobile industry by 2015. Now in 2017, more than 167mn Africans have access to the Internet with around 300 technology hubs on the continent and AfricaCom prepares to welcome more than 13,000 delegates from all corners of the world.

Companies across the continent can benefit with access to tools and expert know-how at the event.

Experimac, one of the companies that will be present at the event, offers re-furbished Apple products and realises to grow the company the appropriate tools, at an affordable rate is of paramount importance. "We are exhibiting at AfricaCom this year, as for us, it presents a perfect opportunity to engage with young minds who are shaping the business landscape and who might not necessarily have access to finance or the equipment to put their ideas into practice. AfricaCom will attract these fresh minds, as it will provide them with insight and opportunity and we can help them realise their dreams and potential" said Dirk van Loggerenberg, CFO of Experimac.

This year's show also features The Village, a VIP luxury networking space, designed exclusively for C-Level operators and regulators, speakers and ICT leaders from large enterprises. decision makers of Africa's tech and telco industry can meet to conduct business, share insights and swap stories, entertain clients, arrange private meetings or just recharge and reflect on the day's events. ✇

Overcoming connectivity challenges in Africa

There are an estimated 960mn mobile subscriptions across Africa - an 80 per cent penetration rate, while Internet penetration is at 18 per cent, with around 216mn Internet users. However, operators are facing challenges in unlocking the continent's full potential.

Qwickfone uses solar powered technology that forms a local network to get villages connected to the world via satellite or long distance Wi-Fi. (Photo: naypong)

ISRAELI NANO-SATELLITE COMMUNICATIONS technology company **Sky and Space Global,** explains that rural areas in Africa are known to suffer from poorer broadband and mobile coverage than affluent urban regions. However, while pretty much all citizens of the wealthier economies can enjoy at least basic connectivity, millions of people in less developed countries have no mobile or broadband coverage whatsoever

The key challenges for the provision of telecommunication services in remote and rural areas are driven both by technological and economic considerations. Setting up backhaul connectivity remains extremely expensive in remote locations with poor or no city infrastructure. Another major challenge to the wider adoption of telecommunication services in remote locations is the erratic power supply or complete lack of energy sources to power the telecoms networks.

Despite the challenges in these regions, there are ways to ensure affordable connectivity. Choosing efficient, cost-effective and fast-deployment technologies will improve accessibility and lower the operational costs required.

Sky and Space Global believes one solution is to build a constellation of nano-satellites which covers the equatorial region and will provide telecom operators and service providers with low-cost coverage in remote locations and allow them to expand their existing networks without having to invest heavily in building costly infrastructure networks on the ground.

Setting up backhaul connectivity remains extremely expensive in remote locations with poor or no city infrastructure.

Using nanosatellites enables Sky and Space Global to lower the cost of building and launching them, which in turn allows for the financial feasibility of affordable connectivity services to remote locations in a reliable manner. This means that service providers will be able to offer more affordable services to people in remote locations, providing them with the voice and text services that they need.

The introduction of this kind of new-space satellites and technology is of mutual benefit to those developing the technology, those launching the satellites, the telecom providers, and most of all, the people on the ground whose lives will be positively impacted by gaining access to these services.

A new white paper by the entrepreneurs behind **Qwickfone** highlights that the widely held claim by the telecoms industry that one billion more people in Africa will be connected to the world via mobile phones by 2021 is a misconception. The five main challenges they have identified that prevent further growth of mobile phones in Africa are: inefficient and outdated power supply, which is needed to run networks, an inability to maintain cellular networks due to a lack of foreign currency required to purchase equipment from abroad, short-sighted competition between telecoms companies keeping coverage concentrated only in urban areas and not in remote rural villages where network access could transform lives, inefficient patchy network coverage even in densely populated cities and a lack of spectrum due to the governments reluctance to convert to digital broadcasting.

Chris Godfrey, executive director of Qwickfone said, "The key issues holding back further expansion include; decaying local infrastructure and economies in many countries are at breaking point. A lack of efficient power supply and sufficient trade to allow hard currency purchases, and a shrinking spectrum making access to digital networks impossible. As the estimated population is set to double by 2050, there will only be further strain on a broken system.

"What Africa needs in order to reach the target of connecting one billion additional people to a mobile network is a cheap, robust, and entirely self-sufficient network." Qwickfone aims to provide a low-cost, solar powered technology that forms a local network to connect the village to the world via satellite or long distance Wi-Fi, bringing cheap and easy phone access to anyone, anywhere. According to the firm, over a five-year period, a Qwickfone network costs less than a cup of premium coffee a day to keep a whole village connected. "This lack of connection to the world impacts health, wealth, education and democratic rights, resulting in persistent poverty — especially for women. ✆

Angola Cables livre le premier câble sous-marin entre l'Afrique et l'Amérique du Sud

ANGOLA CABLES A ANNONCÉ l'achèvement de l'installation du Système de câble de l'Atlantique Sud (SACS) lors d'un événement inaugural officiel à Sangano, en Angola.

José Carvalho da Rocha, ministre angolais des télécommunications et des technologies, et des chefs d'entreprise locaux et internationaux ont assisté à l'inauguration, avec les actionnaires et les invités d'Angola Cables. Le SACS est un projet stratégique pour l'Angola pour promouvoir l'économie numérique de la région et améliorer les communications mondiales.

«L'Angola devient l'un des hubs des télécommunications en Afrique subsaharienne », a déclaré António Nunes, PDG d'Angola Cables.

«Les systèmes de câbles existants, tel le WACS, et les systèmes de câbles SACS et Monet, associés à des centres de données locaux, vont non seulement améliorer la connectivité, mais aussi soutenir économiquement l'Angola et les régions environnantes, au moment où les entreprises technologiques demandeuses d'une connectivité élevée installent et développent leurs activités en Afrique. »

Nunes a ajouté : « Pour les Angolais, le temps d'accès au contenu disponible en Amérique - le plus grand centre de production et d'agrégation de contenus et de services numériques - sera cinq fois plus rapide. »

La phase d'installation du câble sur le rivage angolais constitue l'un des chantiers clés du projet car elle implique plusieurs niveaux d'interaction et d'activités, ce qui en fait un moment critique et à risque élevé. « L'installation de SACS représente la réalisation d'un rêve, un développement qui reflète notre capacité à trouver des solutions et à surmonter les défis, toujours en gardant à l'esprit l'objectif final, » a souligné Nunes. Moroni Torgan, maire adjoint de Fortaleza, Camilo Santana, gouverneur de l'État du Ceará (Brésil), António Nunes, PDG d'Angola Cables, Naiole Santos, président du conseil d'administration d'Angola Cables, et José Carvalho Rocha, ministre angolais des Télécommunications comptaient parmi les personnalités officielles assistant à l'inauguration.

Les systèmes de câbles SACS et Monet vont permettre d'interconnecter trois continents (Amérique du Sud, Amérique du Nord et Afrique), ainsi qu'un centre de données de niveau III à Fortaleza qui interconnecte les systèmes de câbles.

Officials at the launch of the South Atlantic Cable System to connect Americas and Africa. (Photo: Angola Cables)

Angola Cables a également installé Angonix, un point d'échange Internet neutre situé à Luanda, qui interconnecte les réseaux mondiaux et les fournisseurs de contenu. L'entreprise gère aussi Angonap, un centre de données neutre situé à Luanda et qui est le point d'échange du trafic de l'entreprise en Angola.

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