- ● Mobile money - enhancing digital inclusion?
- ● Connecting Africa from orbit
- ● Unlocking 5G monetisation

About Intelsat

Intelsat's global team of professionals is focused on providing seamless and secure, satellite-based communications to government, NGO and commercial customers through the company's next-generation worldwide network and managed services. Bridging the digital divide by operating one of the world's largest and most advanced satellite fleet and connectivity infrastructures, Intelsat enables people and their tools to speak over oceans, see across continents and listen through the skies to communicate, cooperate and coexist. Since its founding six decades ago, the company has been synonymous with satellite-industry "firsts" in service to its customers and the planet. Leaning on a legacy of innovation and focusing on addressing a new generation of challenges Intelsat team members now have their sights on the "next firsts" in space as they disrupt the field and lead in the digital transformation of the industry.
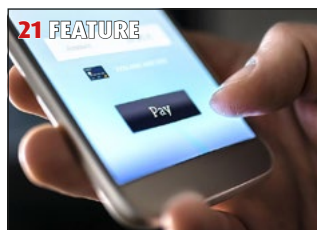
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KADIUM

Vodacom Western Cape invests for festive season

Vodacom Western Cape has invested R350 million in network upgrades, adding 5G to 50 towers and bolstering infrastructure to ensure seamless connectivity during the busy festive season.

Vodacom Western Cape region has implemented significant network upgrades to meet the rising traffic demands, ensuring that visitors to the province remain connected during the busy festive season.

"We have pledged to invest R350 million this financial year to enhance the quality, capacity, and reach of our broadband network infrastructure across the Western Cape. As we approach the busy festive season, we are confident that our improvements will help us manage congestion and keep our customers connected even in busy tourist hotspots," said Carol Hall, Managing Executive, Vodacom Western Cape region.

To maximise network reliability, Vodacom Western Cape has ensured that network maintenance operations will be fully operational throughout the season, focusing resources on areas surrounding holiday hotspots. The network capacity has been significantly improved, with 5G added to 50 towers and additional 4G capacity added to 384 towers. These upgrades are supported by the deployment of six temporary base stations for holiday hotspots and ten new permanent base stations across the province. With continued focus on improving network reliability, 119 towers received battery upgrades, 37 towers received power infrastructure upgrades, and 29 new standby generators were installed at key network facilities.

Vandalism at base stations and battery theft remains a major problem as the criminal activity causes disruptions to network services, resulting in frequent downtime for customers. Vodacom has adopted a comprehensive approach to managing this.

"Unfortunately, theft and vandalism continue to challenge our goal of providing exceptional connectivity," said Hall. "We are actively seeking ways to minimize downtime due to power outages and have adopted a multi-layered approach to managing energy-related challenges. By upgrading our infrastructure and investing in high-end site security to mitigate theft of batteries and generators, we are excited to offer our customers superior connectivity wherever they travel. Tourism, both local and international, is a key economic contributor. We aim to provide our users with peace of mind and a world-class network experience as they explore everything our beautiful province has to offer."

MTN Congo signs up for Digital Transformation Acceleration Project

MTN Congo has signed a contract with the government as part of the World Bank-backed Digital Transformation Acceleration Project (PATN). The telecoms company will connect 185 rural localities with the deployment of new telecoms sites and migrate 76 telecoms sites from 2G to 3G.

"I see in the signing of this contract, much more than an administrative act, our determination to modernize digital infrastructures, to improve access to reliable electronic communications services, and to connect the most remote areas of our territory," said Léon Juste Ibombo, Minister of Posts, Telecommunications and the Digital Economy.

With the deployment of the new sites in 185 rural areas, MTN is targeting 404,000 inhabitants. This should enable it to strengthen its leading position in the national telecoms market.

ITU: 2.6 billion remain offline in 2024

The International Telecommunication Union (ITU) reports that 227 million new people connected to the internet for the first time in 2024, bringing the total number of connected people to over 5.5 billion.

This figure accounts for 68% of the global population, meaning that a third of the world's population (2.6 billion) remains offline as the stubborn digital divide persists. For comparison, in 2023, there were 2.8 billion unconnected people, equivalent to around 35% of the population.

ITU Secretary-General Doreen Bogdan-Martin said the figures highlight "a tale of two digital realities between high-income and low-income countries."

"Stark gaps in critical connectivity indicators are cutting off the most vulnerable people from online access to information, education, and employment opportunities. This report is a reminder that true progress in our interconnected world isn't just about how fast we move forward, but about making sure everyone moves forward together," said Bogdan-Martin.

"The world is inching towards universal access at a time when it should be sprinting," said Cosmas Luckyson Zavazava, Director of ITU's Telecommunication Development Bureau.

The report found that 70% of men used the internet in 2024 compared to 65% of women, a gap of around 189 million. However, progress is being made towards achieving gender parity.

Affordability is improving, with the cost of fixed broadband in low-income countries now equating to nearly a third of average monthly income. Around four out of five people aged over 10 own a mobile phone, but this is more prevalent in high-income countries—where 95% of those over 10 possess a mobile phone—compared to just 56% in low-income markets.

A more significant divide exists between urban and rural dwellers, with 83% of urban residents using the internet compared to only 48% of rural inhabitants. Of the 2.6 billion people who remain unconnected, 1.8 billion live in rural areas.

5G coverage is estimated to reach 51% of the global population this year, but significant disparities persist between high- and low-income countries. While 84% of people in high-income nations are covered by 5G, only 4% have access in low-income countries. The average monthly mobile broadband traffic per subscription in high-income nations (16.2GB) is eight times higher than in low-income economies (2GB).

"While we continue to make progress on connectivity, our advances mask significant gaps in the world's most vulnerable communities, where digital exclusion makes life even more challenging. We must intensify our efforts to remove the barriers that keep people offline and close the usage gap. We must renew our commitment to achieving universal and meaningful connectivity so that everyone can access the internet," said Zavazava.
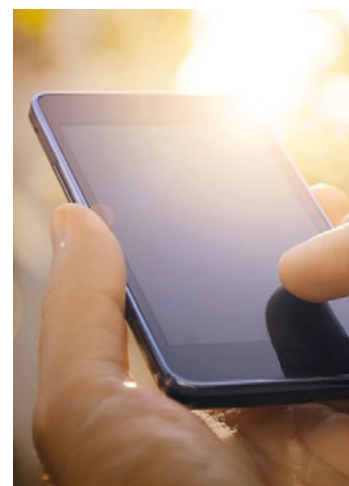
Zambia launches free WiFi at InterCity bus station

Zambia has launched public free WiFi at the InterCity bus station in Lusaka.

Felix Mutati, minister of technology and science, said that the move reflected dedication to bridging the digital divide and empowering citizens, particularly marketers and travellers, who are the 'backbone' of local economy. This effort provides marketers with access to online services, financial services, and business-growth tools, while travellers benefit from seamless communication and access to information, which improves their journeys and livelihoods, said the minister.

"We're excited to work with the government to provide Wi-Fi equipment and a reliable bandwidth capacity of 25Mbps at each of the pilot sites. This program will surely improve the lives of Zambians," said Duncan Pie, regional manager at Inq Digital.

"With this joint launch, we are providing free internet to the public to access over 320 government services from various government organisations via the Zam-portal. This can now be done from your smartphone or device, without having to visit a government office," said Percy Chinyama, Smart Zambia's national coordinator.

CRAN orders Starlink to cease operations

The Communications Regulatory Authority of Namibia (CRAN) has ordered Starlink to halt its satellite internet operations within the country, citing a lack of the required telecommunications license.

After a thorough investigation, CRAN discovered that Starlink was providing internet services in Namibia without obtaining the necessary proper licensing. Consequently, on 26 November, the regulatory authority ordered a cease-and-desist order, demanding that Starlink immediately suspend all its network operations within the country.

"The public is advised not to purchase Starlink terminal equipment or subscribe to its services, as such activities are illegal," said CRAN in a statement. "Investigators have already confiscated illegal terminals from consumers and have opened criminal cases with the Namibian police in this regard."

Additionally, CRAN has issued a public warning, cautioning citizens against buying Starlink satellite equipment or signing up for its services, emphasising that such activities are illegal.

Airtel Africa connects 1,500 schools

Airtel Africa's five-year partnership with United Nations Children's Fund (UNICEF), aimed at transforming education across the continent, has connected over 1,500 schools to the internet, trained 17,000 teachers, and reached nearly a million learners with quality digital education resources across 13 African countries.

The partnership was launched in 2021 as part of Airtel Africa's $57 million commitment to support the development of education and bridge the digital divide for vulnerable children in remote communities in collaboration with African governments.

Since the commencement of the partnership, Airtel Africa has prioritised the accessibility of online learning resources, including zero-rated educational platforms and teacher training, to support equitable learning opportunities for Africa's children.

"Our mission is to transform lives, and through our collaboration with UNICEF, we are witnessing the profound impact that connectivity and digital resources can have on Africa's children and teachers," said Airtel Africa CEO, Sunil Taldar. "For every school we have connected and for each teacher trained on using these digital tools, we are taking tangible steps toward realizing our commitment to bridging the digital divide, advancing educational equality and restating our commitment to the relentless pursuit of a better future for African children on the continent. By equipping these schools with internet connectivity and training teachers on how to use the digital tools, Airtel Africa and UNICEF are providing Africa's children, particularly those in underserved and remote regions, with the digital tools and skills they need to thrive in a technology-driven world. This is why we are celebrating with the children on this special occasion of World Children's Day, specially dedicated to them and all the effort aimed at securing and improving their future."

AXIAN Telecom unites operators under 'Yas' brand

AXIAN Telecom has unveiled a change of its commercial identity. Its mobile network operators in Madagascar (Telma), Comoros (Telma), Senegal (Free), Togo (Togocom) and Tanzania (Tigo) will now operate under the Yas brand while its various fintech units in Senegal, Togo and Tanzania will display the Mixx by Yas identity.

According to Hassan Jaber, Chairman and CEO of AXIAN Telecom, this rebranding signals that we are ready to move up a gear. This is an important milestone for the AXIAN Telecom Group, underlining the success achieved so far in Africa and demonstrating the company's strategic position for sustainable growth.

"Yas brings this strategy and streamlined approach to life by addressing our broad and diverse customer base, which remains at the heart of everything we do. We believe the unified brand will better serve our customers by leveraging the combined resources and assets of a strong, unified pan-African business under one brand," said Jaber.

AXIAN Telecom's revenue increased from $429.1 million as of 31 December 2020 to $1.089 billion as of 31 December 2023, an increase of 153.84%. For the first nine months of 2024, the group reported revenue of $1.026 billion, representing 94.24% of the revenue for the twelve months of the previous year.

Through the new Yas unique brand, the company wants to create a strong and coherent identity, strengthening its visibility and recognition; facilitate and strengthen the effectiveness of its marketing communication; centralize its brand management; and strengthen the group's cohesion on a global scale.

"AXIAN Telecom has had an incredible journey, connecting people across Africa through our brands. As the company grows and expands, we have a new vision. To empower the next generation of digital pioneers, we need to become a pan-African multi-market mobile operator. We believe Yas will build on the success and legacy we have in the markets and continue to deliver transformative and inclusive technology solutions through sustainable connections," said Hassanein Hiridjee, Chairman of the Board of AXIAN Telecom.

Cross-border MoMo transaction deals

MTN MoMo in South Africa and EcoCash in Zimbabwe have partnered to provide what are described as effortless direct cash transfers between the two countries.

The partnership provides a reliable, efficient and affordable way to move money directly into EcoCash electronic wallets, according to Kagiso Mothibi, Chief Executive Officer for Fintech, MTN South Africa.

"Many Zimbabweans in South Africa using MTN MoMo as their mobile money provider can now use EcoCash link, which does away with the need to use expensive and, often, time-consuming traditional remittance channels to get money to loved ones," said Mothibi.

The most attractive part of EcoCash is the low remittance fee structure and the ability to withdraw payments made in South African rands as United States dollars at any of 9,000 EcoCash representation points in Zimbabwe if recipients wish. In addition, all transfers occur in real time on the MTN MoMo app and are immediately reflected in the chosen EcoCash wallet across the border.

Starlink turns eyes to Tanzania

Starlink Satellite Tanzania Limited has submitted applications for the necessary licenses to operate in the country to the Tanzania Communications Regulatory Authority (TCRA).

Starlink's entry into Tanzania has been long-anticipated but has faced several hurdles. Negotiations on spectrum rights and compliance with Tanzania's data protection laws are central to the licensing process. In its public notice, the TCR emphasised that any operations must adhere to the country's regulatory framework, including data security and internet governance standards.

To ensure transparency, the TCRA has opened a 14-day public consultation period for stakeholders to comment or raise concerns about Starlink's license applications. The consultation period offers public scrutiny, with a final decision on the approval expected after the window closes.

Econet Wireless Zimbabwe adds 32 5G towers

Econet Wireless Zimbabwe added 32 5G base stations in Harare for the half-year ending August 31, 2024, with an additional 120 sites planned.

"The continued network infrastructure modernisation programme has had a positive impact on the business as we launched initiatives to improve customer experience and launch new business lines," said Econet Wireless Zimbabwe. "The upgrade of our core network is proceeding as planned. The upgrade will provide

increased network performance as well as unlocking new capabilities that will allow the business to offer new, exciting and personalised services for our customers as well as support the transition to a full digital services provider."

Econet Wireless Zimbabwe reported that internet and voice usage increased by 56% and 36%, respectively, compared to the first half of last year, thanks to continuous network modernisation. Data demand remained elevated, resulting in a revenue contribution of 47% compared to 38% in the preceding period, while voice revenue contribution fell to 41% from 49%, owing mostly to increased data usage.

Econet's mobile money business recorded a 26% growth in revenue, driven by an increase in subscribers, while wallet funding increased by 47% driven by a combination of increased cash-in transactions, payroll processing into wallets and international remittance receipts. During the reporting period, its insurtech business achieved a marginal 3% revenue growth compared to the same period last year.

Looking ahead, Econet will continue to focus on using emerging technologies to improve its service offerings, and that continuous network modernisation and an expanding 5G footprint will allow it to deliver faster and more reliable services.

Madagascar's MNOs denounce MoMo tax plan

Madagascar's three mobile money operators – MVola, Orange Money and Airtel Money – have denounced plans by the government's Directorate General for Taxes (DGI) to tax mobile money transactions, which they say will discourage financial inclusion and harm the economy.

The DGI announced that it is looking to introduce a 0.5% tax on all mobile money transactions above MGA150,000, which it said will generate MGA143 billion in tax revenue per year. According to a joint statement from MVola, Orange Money and Airtel Money, the actual tax revenue would be far less, as it would actually reduce usage of mobile money services.

MVola, Orange Money and Airtel Money said families would see fees for money transfers increase by up to fivefold, and while fees for merchant payments would increase by much as tenfold. That would cause the

number of active mobile money users to drop 30% immediately and decrease the value of transactions 60% within six months.

Mobile money operators claim the tax would encourage people to switch back to cash, which goes against the financial inclusion efforts promoted by the Central Bank of Madagascar, as well as the government's own digitalisation initiatives.

Among other things, taxing mobile money would slow down digitization of the economy, increase security risks, reduce the traceability of transactions (which would also make it more complicated to collect tax revenue), reduce foreign exchange inflows and discourage local and international investment. MVola, Orange Money and Airtel Money also noted that similar tax schemes in other countries such as Tanzania, Ghana, Cameroon and Central African Republic that have seen similar results.

BAI to deploy free WiFi

The Angolan Investment Bank (BAI) plans to deploy 120 free Wi-Fi points in the country starting in January 2025.

The deployment of Wi-Fi hotspots by the BAI can help to remove the barrier of high internet service costs in the affected areas. However, many other barriers remain, such as the high cost of compatible devices, low levels of digital literacy and skills, as well as

concerns about security and the user experience offered by connectivity.

"The first phase of the program will last 12 months, until December 2025, during which we will evaluate the performance of the access points, ease of maintenance and acceptance by local communities, as well as the support of municipal administrations," said the bank.

South Africa's SatCom strategy to cut communications costs

The Departments of Communications and Digital Technologies (DCDT) and Science, Technology, and Innovation (DSTI), alongside Sentech and the South African National Space Agency (SANSA), have provided an update on South Africa's National Communication Satellite Strategy (SatCom), which aims to narrow the country's digital divide and establish South Africa as a leader in satellite technology.

The project aims to reduce reliance on foreign service providers, curb capital outflows, and create a sovereign communication capability to address both national needs and regional opportunities. According to SANSA's estimates, South Africa spends ZAR 1.5 billion annually on satellite communication services and approximately ZAR 100 billion on foreign communication services.

"This strategy will ensure equitable access to communications for all South Africans, improving lives and creating economic opportunities, particularly in historically marginalised communities," said SANSA CEO Humbulani Mudau.

The SatCom initiative aligns with national priorities, including reducing connectivity costs, supporting digital transformation,

and addressing the significant digital divide between urban and rural areas. DCDT Deputy Director-General Tinyiko Ngobeni says that the strategy is critical for ensuring reliable emergency communications, enhancing national security, and expanding access to remote regions' education, healthcare, and financial services.

With the strategy already endorsed by key stakeholders and independent experts, the DCDT plans to present it to the South African Minister of Communications and Digital Technologies, Minister Solly Malatsi, for final input before initiating public consultations. Once approved, the strategy will proceed to the Cabinet for ratification, followed by drafting a detailed implementation plan.

Mauritius fines operators for quality failures

The Mauritanian Regulatory Authority (ARE) has applied financial and administrative sanctions against Mattel, Mauritel and Chinguitel for 'failures observed in certain cities, localities, roads and agglomerations.'

Mauritel was fined 313.2 million ouguiyas and reduced the duration of its current 2G license by one month. Mattel was fined 127.03 million ouguiyas and reduced the duration of its current 2G license by two months. Chinguitel will have to pay 100.2 million ouguiyas to the public treasury. The durations of its current 2G, 3G and 4G licenses were also reduced by three, one and two months respectively.

This decision by the ARE follows a quality control mission for electronic communications services carried out from 23 September. The telecoms regulator wanted to verify whether the operators had improved their respective levels of compliance compared to the results of a first control mission carried out from 18 December 2023 to 24 January 2024.

The ARE expects the sanctions imposed to permanently ensure levels of quality in accordance with international standards, in accordance with their contractual commitments. Mattel and Mauritel have already announced programs to expand and modernize their respective networks, which should result in an improvement in the quality of service (QoS). Mauritel said that it had invested 14 billion old ouguiyas.

DRC taps Monaco for satellite communications

The Democratic Republic of Congo (DRC) has signed a Memorandum of Understanding (MoU) with Monacosat to enhance the country's satellite infrastructure.

Congolese Minister of Posts, Telecommunications, and Digital Economy, Augustin Kibassa Maliba, signed the agreement, which aims to bridge the digital divide in rural and remote regions.

The partnership will focus on finalising plans to deploy a satellite telecommunications network in the DRC using Monacosat's satellite capacity.

This initiative is a key pillar of the DRC's ambitious 'Horizon 2025' National Digital Plan, designed to establish a resilient digital infrastructure and foster nationwide connectivity. It builds on a recent collaboration with the Polish government to accelerate the expansion of digital networks across the country.

If negotiations prove successful, Monacosat plans to expand its coverage across the DRC through the TurkmenAlem52E/MonacoSAT satellite. This initiative holds the potential to connect millions of Congolese, while enhancing access to education, healthcare, and digital public services. Additionally, it could help bridge gaps caused by delays in expanding the fibre optic network.

Vodacom-Maziv merger rejection appealed

The South African Department of Trade, Industry and Competition has appealed the Competition Tribunal's rejection of the merger between Vodacom and Maziv, handed down on 29 October.

Parks Tau, the Minister of Trade, explained that the appeal lodged with the Competition Court of Appeal (CAC) was made out of caution in order to comply with the appeal deadlines provided for by law, while waiting for the details of the rejection to be published.

"Given that the reasons for the injunction have not yet been published, the Minister considered it prudent to formally appeal the Tribunal's decision in order to meet the time limit for appealing the Tribunal's order in its entirety under sections 17(1)(c), 18(1) and 61(1) of the Competition Act, as well as Rule 16 of the CAC Rules of Procedure. Once the reasons have been provided, the Minister will assess and advise accordingly," said the ministry in a statement.

Vodacom, Remgro Ltd and Maziv have also announced their intention to also file an appeal with the Competition Court of Appeal.

During the hearings held earlier this year by the CAC, several South African players in the telecoms market opposed the merger. They feared the advent of a dominant super operator in the fibre optic market, as Maziv Proprietary Limited — a wholly-owned subsidiary of Community Investment Ventures Holdings (CIVH), itself wholly-owned by Remgro Ltd — wholly-owns Dark Fibre Africa (DFA) and Vumatel.

Vodacom's collaboration with DFA and Vumatel worries players in the fibre optic segment, who fear that the mobile operator, which also has a fibre optic network, will end up with several assets.

Telkom suspends plans to sell Openserve stake

Telkom has suspended plans to sell part of its fibre business, Openserve, according to CEO Serame Taukobong.

The fixed broadband service offered by Openserve has helped drive the company's half-year income - shares in Telkom reportedly rose after it reported that half-year adjusted headline earnings per share grew by 57.5%.

Taukobong has stated that discussions or investigations into partnerships for Openserve have been suspended and made it clear that Openserve will remain a core and critical part of the group's strategy.

Telkom has been investing in migrating customers away from copper-based technology to faster, next-generation network (NGN) offerings such as fibre and 4G/LTE. NGN revenue now contributes 80.9% to operating revenue, up from 74.4% in the previous period, offsetting the impact of the group's decision to ditch legacy services.

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SSA mobile subscriptions to expand by 4% annually

The latest November 2024 edition of the Ericsson Mobility Report forecasts that total mobile subscriptions in sub-Saharan Africa will grow at an annual rate of 4%, increasing from 950 million in 2023 to 1.2 billion by 2030.

The strongest growth will come from 5G subscriptions, which are forecasted to rise from 11 million in 2023 to 420 million by the end of the decade at a rate of 59% annually, representing 33% of total subscriptions. Driving forces behind growth in the region include a young population, the accessibility of affordable smartphones, and a rising demand for mobile data and advanced services.

By 2030, 4G subscriptions will account for 35% of total mobile subscriptions, with 2G and 3G subscriptions expected to decline as the shift to 4G and 5G networks continues.

The telecom sector in sub-Saharan Africa remains resilient, with communications service providers (CSPs) in the region diversifying into financial technology, particularly mobile money services, and Fixed Wireless Access (FWA).

"Driven by a young and dynamic population, the increasing affordability of smartphones, and the growing demand for mobile data and advanced services, the November 2024 edition of the Ericsson Mobility Report highlights the significant growth potential of mobile subscriptions in sub Saharan Africa by 2030," said Ante Mihovilovic, Vice President and Head of Networks at Ericsson Middle East and Africa. "With 5G subscriptions forecasted to rise by 59 percent annually by the end of the decade, the region will make notable strides in connectivity and digital transformation, continuing the diversification into financial technology, particularly mobile money services, and Fixed Wireless Access. Aligning with our #AfricaInMotion vision to empower a sustainable and connected Africa,

Talking critical

Stuart Will, TCCA TETRA Industry Group

The role of LMR in hybrid networks within critical operations

As industries grapple with increasingly complex critical operations in challenging environments, the demand for reliable, secure, and efficient communication systems is intensifying. While the spotlight increasingly falls on technologies renowned for high-speed capabilities, such as broadband, Land Mobile Radio (LMR) continues to play a vital role. Instead of viewing these technologies as competing forces, hybrid network solutions that combine LMR with broadband offer an advanced, cost-effective, and resilient option for ensuring seamless communications in the most demanding situations.

Hybrid networks are emerging as a preferred approach for organisations looking to protect workers within critical operations. By blending the strengths of different network types—specifically, LMR with LTE/5G—they provide flexibility, redundancy, and cost-efficiency that neither technology can achieve alone.

Hybrid networks enable organisations to leverage both private and public infrastructures, creating scalable solutions that can adapt to fluctuating operational demands. This is particularly relevant for environments like rail networks or mining sites, where bandwidth requirements can vary depending on user numbers, data volume or task complexity.

By utilising both networks, operators can efficiently meet fluctuating bandwidth demands without compromising performance or communication quality. The ability to scale operations seamlessly also positions hybrid networks as a future-proof solution, adaptable to growing operational needs.

Reliability is non-negotiable in critical communications, where system failures can have severe consequences. Hybrid networks excel in this area by integrating multiple network types, allowing traffic to be dynamically routed between LMR and broadband systems in real-time. This ensures continuous operation even in the event of network outages or infrastructure failures.

In environments where communications infrastructure is often spread across difficult terrains, maintaining uninterrupted communication is paramount. A hybrid network can automatically manage failovers without human intervention, ensuring that essential operations remain online. LMR provides the foundation of reliability with its robust, dedicated channels, while LTE/5G supplements it with additional bandwidth for data-heavy applications. The result is an operational safety net that reduces the risk of communication failures during emergencies or high-demand situations.

One of the most compelling reasons for adopting a hybrid network approach is its cost-effectiveness. Fully redundant broadband systems in challenging environments can be prohibitively expensive, requiring significant investments in infrastructure, ongoing maintenance, and support. However, hybrid networks balance this by utilising standard internet connections alongside private, dedicated networks like LMR, reducing the need for entirely redundant systems.

Organisations can deploy LMR to handle critical voice communications, ensuring secure and reliable operations, while reserving LTE/5G for high-speed data transmission where necessary. This reduces capital expenditure while maintaining a comprehensive communication solution. Particularly in industries like transportation or energy, where operational budgets are tightly managed, hybrid networks offer a way to deliver world-class communication capabilities without the cost burden of building extensive broadband-only infrastructure.

Hybrid networks also optimise performance by deploying network gateways closer to the action, whether it's a wind farm or a sprawling mining site. This minimises routing paths, enhancing data transfer speeds and reducing latency—critical factors for real-time decision-making. At the same time, hybrid networks maintain robust security controls, leveraging both LMR's established strength in secure communication and the encrypted capabilities of LTE/5G, making hybrid networks particularly suited to operations where both efficiency and protection of sensitive data are critical.

With the integration of next-generation technologies like 5G, hybrid networks are uniquely positioned to support advanced applications that are becoming essential in modern critical operations. These include real-time data analysis, video streaming, augmented reality (AR), and enhanced situational awareness—applications that require not just speed but also consistency and resilience in data transfer.

For example, in an offshore wind farm, LTE/5G could be used to support real-time video feeds from drones inspecting turbines, while LMR facilitates direct voice communication between the drone operator and maintenance crews. By using a hybrid network, the operation can simultaneously manage both advanced, data-intensive applications and critical voice communications without interruption, significantly boosting operational efficiency and safety.

Amid all the hype surrounding LTE/5G, it's important not to overlook the enduring value of LMR in critical communications. LMR has long been the backbone of voice communications in industries that rely on reliable, instant communication in isolated or hazardous environments. Its dedicated spectrum ensures that LMR channels are never congested, providing uninterrupted service even in the most challenging conditions.

Additionally, LMR systems are designed with built-in redundancy and resilience, ensuring that they remain operational during power outages, natural disasters, or network failures. In contrast, LTE/5G networks may be vulnerable to congestion, latency, or complete outages in high-demand scenarios. For operations where every second counts, such as a mine site facing a potential hazard, LMR's reliability remains irreplaceable.

Rather than viewing LMR and broadband as opposing technologies, organisations are increasingly recognising the value of hybrid network solutions. By integrating the best aspects of both, hybrid systems deliver unparalleled agility, reliability, and cost-efficiency.

For industries like transportation, energy, and mining, which operate in challenging environments with little room for error, hybrid networks offer a robust, future-proof communication infrastructure. They provide the flexibility to scale operations without significant additional costs, the resilience to withstand outages and infrastructure failures, and the performance needed to support both traditional voice communications and cutting-edge applications.

As we move forward, hybrid networks will continue to be the communication backbone for critical operations, ensuring organisations can operate with confidence in even the most demanding environments. Hybrid solutions offer the perfect balance of reliability, security, and cost-effectiveness, making them indispensable to the future of critical communications.

Stuart Will's work for TCCA is sponsored by DAMM Cellular Systems.

MTN CloudPlay brings mobile gaming to South Africa

MTN has launched MTN CloudPlay, its cloud gaming service, in South Africa, in partnership with Telecoming. The service allows users to access games designed for consoles such as the Playstation 5 from their smartphones, without the need for high-performance computers or the required consoles.

Facilitated by 5G, cloud gaming allows users to stream games without losing the fluidity and gaming experience provided by the latest generation of consoles or computers. For a monthly fee of $4.37, MTN offers more than 340 games with its offer, ranging from classics Contra and Pac-Man to more recent titles such as Hogwarts Legacy and Borderlands 3.

"The introduction of 5G allows users to stream and game without the need for a PC or console. We are committed to enabling our customers to enjoy the benefits of a modern, connected lifestyle," said Jason Probert, MD of Digital Services at MTN South Africa.

"We believe MTN CloudPlay will change the way South African users play video games," said Alí Karaosman, Director Africa and Middle East at Telecoming.

The implementation of this service, which could soon be exported to other territories where the operator's services are used and where 5G is available, comes in a particular context for the practice of video games in Africa. As the number of gamers increases and events dedicated to video games multiply, MTN is targeting a growing sector.
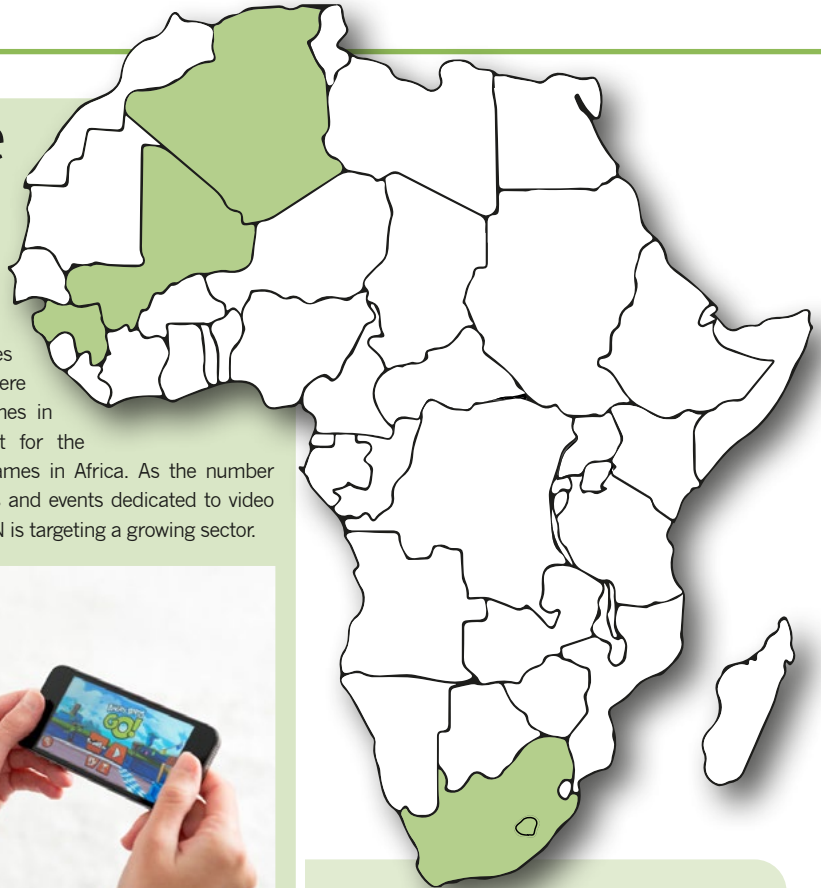
Galaxy Backbone and WIOCC to partner on broadband

Galaxy Backbone (GBB) and WIOCC intend to combine their infrastructure strengths to expand broadband access in Nigeria, where the penetration rate stands at 42.27%.

Statistics from the Nigerian Communications Commission (NCC) as of the end of October 2024 show that the country has 91.57 million broadband users. Additionally, the number of internet subscribers stands at 134.78 million out of an estimated population of 216 million. The Global Mobile Internet Connectivity Association (GSMA) estimates that 120 million Nigerians do not use the internet at all.

"This partnership will improve the responsiveness, efficiency and quality of services for businesses and government institutions. It also aims to bridge the digital divide by expanding broadband access in underserved areas and fostering partnerships with Mobile Network Operators (MNOs) to boost Nigeria's digital economy," said GBB in a statement.

The partnership is expected to help expand broadband network coverage in Nigeria. The International Telecommunication Union (ITU) DataHub platform indicates that 3G, 4G and 5G networks cover 89.4%, 84.2% and 11.8% of the Nigerian population respectively.

Algerian telco modernisation

Sid Ali Zerrouki, Algerian Minister of Post and Telecommunications, has announced a series of measures to modernize and strengthen the telecoms sector.

"As part of monitoring the development of infrastructure and ensuring its availability, Mr Zerrouki made unannounced visits to strategic sites of telecommunications and infrastructure networks, where he gave clear instructions to modernize priority infrastructure before the end of the current year, while insisting on the continuity of services in all circumstances, including in emergencies and during holidays and public holidays," said the release.

These initiatives are part of President Abdelmadjid Tebboune's desire to make the Post and Telecommunications sector one of the pillars of socio-economic development in Algeria.

Guinea and Sierra Leone sign cooperation framework

Rose Pola Pricemou, Guinean Minister of Posts, Telecommunications and Digital Economy, and Salima Monorma Bah, Sierra Leonean Minister of Communication, Technology and Innovation, have signed a framework agreement aimed at strengthening digital interconnection between their two countries.

The agreement, which includes the interconnection of the internet backbones of the two territories, aims to improve their connectivity and promote digital exchanges.

For Rose Pola Pricemou, this initiative should make it possible to unify postal policies to improve essential services to populations, particularly those in rural areas, to make the network more robust and reliable to reduce costs and improve the quality of digital services, and to develop a dynamic digital ecosystem with the aim of encouraging collaborative initiatives in areas such as big data and cybersecurity.

Rwanda launches new five-year fintech plan

Rwanda has launched a five-year fintech strategy with the goal of developing a fintech ecosystem to position the country as a regional financial centre.

According to the Ministry of Information Communication Technology (ICT) and Innovation, the plan aims to establish Rwanda as the preferred location for African fintech companies and investments, as well as to strengthen its status as the continent's top financial hub.

The 2024-2029 scheme aims to attract US$200 million worth of investments for local fintech firms.

"This strategy represents not just a policy document, but our country's commitment to positioning Rwanda as a leading fintech hub in Africa," said Paula Ingabire, minister of ICT and Innovation.

Despite having only three registered fintech companies in 2014, the country currently has over 75 active fintech players serving more than 3 million people nationwide.

Aside from attracting investments, Rwanda intends to have at least 300 fintech businesses, 7,500 direct jobs in the sector by 2029, an 80 percent fintech adoption rate, and a ranking in the top 30 on the global fintech index.
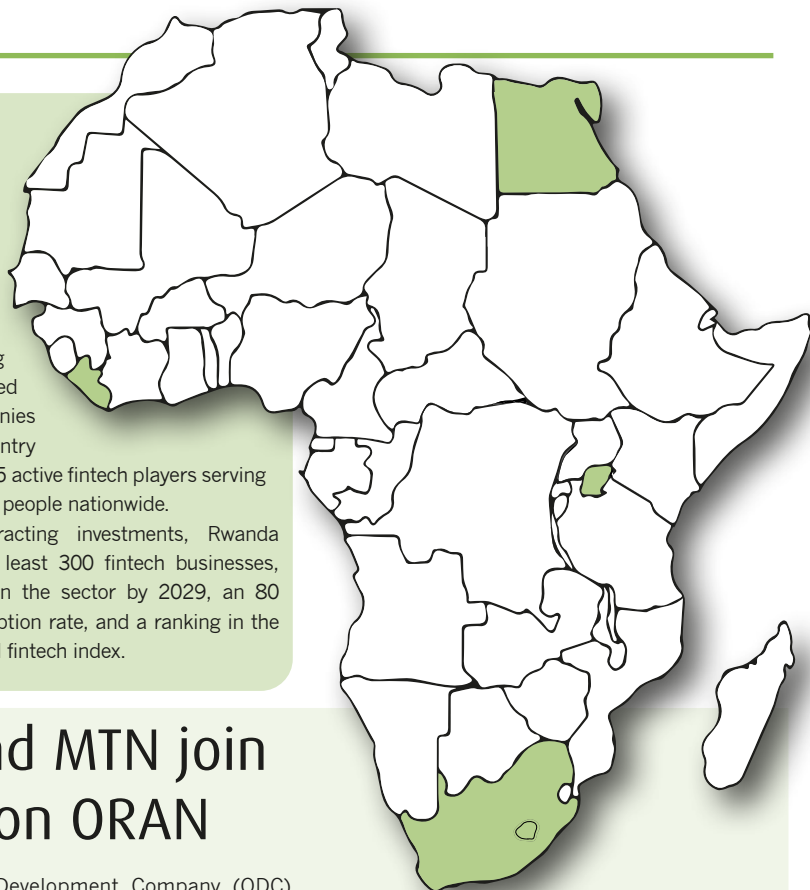
Liberia launches Consumers Protection Regulations

The Liberia Telecommunications Authority has launched the Consumers Protection Regulations, a set of consumers sensitive rules crafted by the LTA that aim to ensure that Consumers of Telecommunication Services in the country receive value for money.

'The People's Regulations' was signed by the LTA acting Board of Commissioner in Gompa City, Nimba County. The occasion was attended by a host of local county officials, civil society organisations as well as representatives of the student community.

LTA acting Commissioner for Consumers, Public Affairs and Universal access, Patrick Honnah, said that the Regulations will come into full force sixty days as of the signing process. This, will enable the MNOs do some meaningful adjustments so as to adhere to the regulations effectively and efficiently.

ODC and MTN join forces on ORAN

The Open RAN Development Company (ODC) has formed a strategic partnership with MTN Group to develop and test new Open RAN (ORAN) technologies tailored to the unique needs of African networks.

MTN said that the collaboration supports its mission of providing affordable, high-quality telecom services across the continent, with advanced Open RAN architectures enabling increased network flexibility.

ODC and MTN Group are launching a joint lab to test ORAN solutions, which the parties say will improve network agility, scalability, and efficiency. As part of this initiative, the two companies will conduct lab and field trials, ensuring optimised performance and seamless integration into MTN Group's existing network infrastructure.

MTN Group will guide ODC in optimising ORAN software and platform development with artificial intelligence to streamline operational expenditure across the network. The partnership will also focus on research and development in 6G and non-terrestrial communications, incorporating these advancements into ODC's ORAN stack.

"Open RAN represents a transformative approach to how we design and operate our infrastructure—enhancing flexibility, driving cost efficiencies, and paving the way for next-generation technologies," said Amith Maharaj, MTN Group network design and planning executive. "Through our collaboration with ODC, we are unlocking new possibilities to expand our reach, improve service quality, and empower the communities and businesses we serve."

"Our collaboration with MTN Group focusses ODC directly on MTN's unique network needs, enhancing efficiencies while supporting the evolution of next-generation capabilities, silicon, and Artificial Intelligence," said Matthew Johnson, global head of ODC.

SICO Technology and e& Egypt launch 5G router factory

Egyptian electronics company SICO Technology and telecommunications operator e& Egypt have announced the launch of locally produced 5G routers.

This collaboration aims to reduce dependence on imports while boosting technological innovation in the country.

The development of this new router is based on a partnership with ToZed, which brings its know-how to SICO's factory located in Assiut, Egypt, to ensure that the products meet international quality standards.

The local production of 5G routers, a first in Egypt, is part of a broader national strategy to develop the information and communications technology (ICT) sector. The Egyptian government has made digital transformation a priority, as reflected in the 'Digital Egypt 2030' plan aimed at 'realizing the digital economy through ICT, to ensure prosperity, freedom and social equity for all.'

Local production also has direct economic benefits for consumers. By eliminating the costs of imports and international transportation, this initiative could make 5G equipment more affordable. This would allow more Egyptians to access the technology, which offers fast internet speeds, low latency, and performance that is ideal for streaming, online gaming, and video conferencing.

This move should also allow the government to achieve its goal of increasing the contribution of ICT to gross domestic product (GDP) to 8% by 2030.

"This milestone is a significant achievement that reflects our ambitious vision to strengthen local industry in Egypt. It supports the country's economic growth and the development of its technology sector," said Ahmed Yehia, General Manager of Fintech and Digital Lifestyle at e& Egypt, of the historic launch.

Moov Africa reports 17.3% net income drop

Moov Africa Burkina Faso (Onatel) reported a net income of 13.17 billion CFA francs ($21 million) for the first nine months of 2024, a decrease of 17.3% compared to the 15.9 billion CFA francs generated during the equivalent period in 2023.

The company also saw its earnings before interest, taxes, depreciation and amortization (EBITDA) fall by 4.7% to 58.53 billion CFA francs while turnover increased by 1.9% to 107.47 billion CFA francs.

According to Moov Africa Burkina Faso, this financial underperformance is mainly due to the increase in energy prices, the rise in operating costs of sites in service, the maintenance and restoration efforts of vandalized sites, as well as the impact of the tax adjustment.

Operationally, Moov Africa Burkina saw its customer base increase by 5.3% to 12.04 million, notably supported by the overhaul of offers and prices, the modernization of mobile networks, access to optical fibre throughout the national territory, good coverage of fixed, mobile, internet networks, combined with the improvement of the quality of service and customer experience. Mobile Internet, broadband-FTTH, and mobile money customers increased by 7.8%, 193.5% and 16.1% respectively.

"Onatel intends to maintain its momentum for the rest of 2024 to finalize the deployment of its investment program planned for the year, improve the quality of services offered to customers, simplify the customer journey, and strengthen cost optimization actions to increase the company's profitability," said Onatel in a statement.
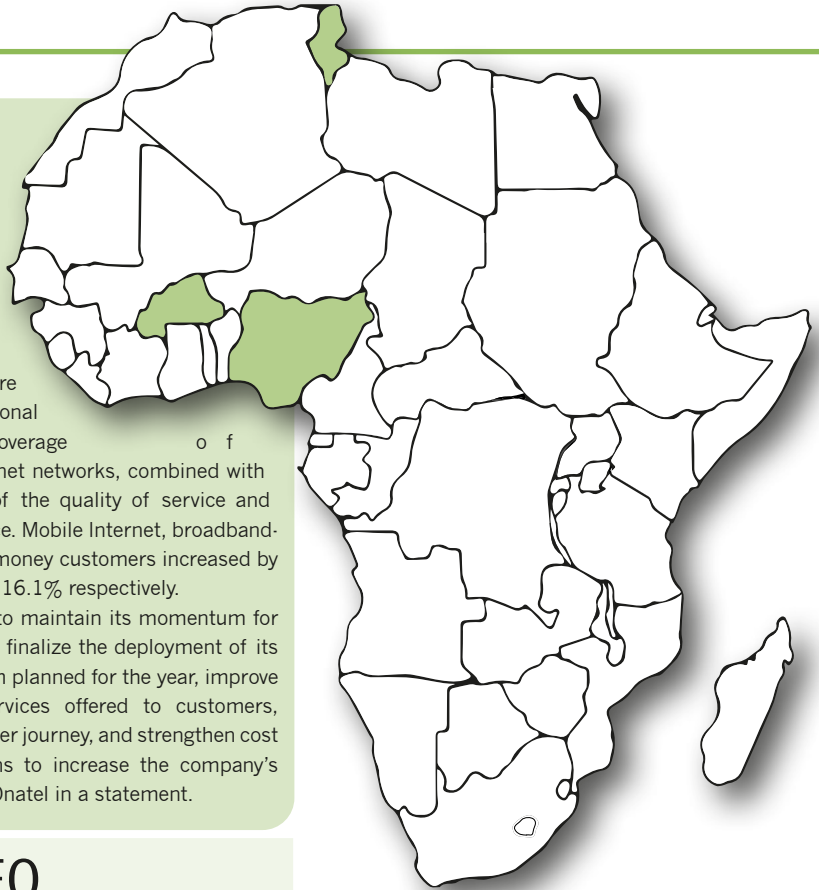
Raxio Group names new CEO

Raxio Group has appointed Robert Skjødt as Chief Executive Officer.

Leveraging his extensive background in management of infrastructure development and operations across Africa, Skjødt will spearhead Raxio's next phase of expansion, planning to at least double the company's presence across the continent within the next three years.

Skjødt brings more than 30 years of experience, with a career that spans leadership roles in major energy, renewables and infrastructure firms worldwide. For the last decade he focused on Africa, where he led the creation of BTE, a pan-African renewable energy company, which was acquired by global energy giant Engie in 2023. Skjødt previously held senior positions at ABB, a global leader in power and automation technologies, where he oversaw complex infrastructure projects and M&A activity across multiple continents.

Under Skjødt's leadership, the company plans to enter additional high-growth markets while increasing its capacity in existing markets to support digital transformation on the continent.

"Our goal is to accelerate Africa's digital growth responsibly," said Skjødt. "By combining Raxio's expertise in data centre development with sustainable energy practices, we can provide essential infrastructure that not only meets the needs of today but also preserves resources for future generations. I'm excited to lead Raxio in expanding our reach and deepening our commitment to environmental stewardship."

"Robert's proven track record in pioneering infrastructure projects across Africa aligns perfectly with Raxio's vision for growth. His leadership will be pivotal as we scale our operations and enhance our services to meet the evolving needs of our clients," said Frans Van Schaik, Chairman of Raxio Group.

Raxio's expansion strategy focuses on underserved markets with significant growth potential and is ideally positioned to respond to growing continental and global needs for data centre capacity while minimising electricity and water usage for power and cooling. By 2027, Raxio plans to establish data centres in at least five additional African countries, more than doubling current capacity and solidifying its position as the continent's leading data centre network. This ambitious growth plan is underpinned by Raxio's unique track-record of building best-in-class data centres and an uncompromising commitment to customer service, safety and sustainability.

Skjødt, who will join on 1 January, was appointed following a comprehensive search conducted by executive firm Egon Zehnder, reflecting Raxio's dedication to strategic leadership and continuity. The outgoing CEO, Robert Mullins, transformed Raxio from a single-project venture into a multi-country operation, and will remain an advisor to ensure a seamless transition.

"When we started, our mission was to build one data centre in Uganda," said Mullins. "Today, Raxio stands as the only operator with a presence in seven African countries. I am confident that under Robert Skjødt's leadership, the company will not only expand its footprint and capacity but also set new standards for sustainability and operational excellence in the industry."

Topnet to launch mobile offering with Tunisie Telecom

Topnet has announced the launch of a mobile offering in partnership with its parent company, Tunisie Telecom. The 'Topnet Mobile by TT' initiative allows the company to diversify its activities beyond fixed-line internet.

Topnet offers its subscribers a range of packages, which can be activated at will, rich in mobile Internet, specially designed to meet the needs of Tunisian families, which can be shared with four prepaid mobile numbers with an exclusive validity of up to 90 days.

This initiative should allow Topnet to strengthen its position in the internet market in Tunisia. The ISP currently dominates all the fixed internet segments in which it is present.

Tunisia finalises 5G licence deals

The Tunisian Ministry of Communication Technologies has officially signed the 5G licensing agreements with Tunisie Telecom, Orange and Ooredoo.

For the Minister of Communication Technologies, Sofiene Hemissi, the introduction of 5G aims not only to meet the growing needs of users, but also to strengthen the competitiveness of Tunisian companies on the international scene. 5G will deliver unprecedented opportunities for innovation, allowing young Tunisian talents to fully engage in digital transformation.

Nigeria plans 200 rural digital hubs

The Nigerian government plans to establish digital technology hubs in 200 rural communities across the country's six geopolitical zones.

"The deployment of these digital centres is aimed at accelerating the growth and diversification of businesses through the integration of modern technologies," said Tokoni Igoin, Special Assistant to the President on Information and Communication Technology (ICT) Development and Innovation.

The initiative is part of President Bola Tinubu's 'Renewed Hope' programme, which places the development of the ICT sector among the strategic priorities to strengthen the Nigerian economy.

The programme aims to improve digital infrastructure, develop citizens' technological skills, support start-ups and promote digital entrepreneurship. It also aims to foster e-commerce, innovation, fintech and research, while digitising public services and strengthening cybersecurity and data protection.

These centres will play a key role in providing opportunities for learning, innovation and entrepreneurship, particularly in rural areas of Nigeria. The aim is to facilitate access to technology while also stimulating local economic development for all.

Talking satellite

John Yates, Managing Director, Atheras Analytics

Keeping networks up – whatever the weather

Africa is full of variations of climate and geography. From the Sahara Desert to the Atlas Mountains and the Nile Valley, although 61% of the population is focused mostly in urban areas, the rest are based in rural regions where fibre is either not available or patchy in coverage.

At a time when the digital society is commonplace and the ability to access important online services such as finance, health and governance is a fundamental need, reliable broadband connectivity is essential.

Although there have been significant improvements in fibre reach across the region, in January 2024, 85.9 million north Africans still did not use the internet. This underscores the importance of satcoms in unlocking digital opportunities and providing critical communications when and where they are required. Rural areas are reliant upon satcoms to access the high bandwidth applications necessary for daily life. High Throughput Satellites (HTS) have become indispensable across Africa due to their use of high frequencies which can deliver more than twenty times the data capacity of traditional satellites at a fraction of the cost per bit – an important consideration for the continent where many people reside below the poverty line.

HTS provide an excellent solution to help the African nations overcome their connectivity issues at an affordable price, but the high frequency bands used by HTS networks are highly sensitive to atmospheric attenuation, which can cause outages and take down essential access to broadband connectivity.

Deserts to floods

Several regions of Africa have experienced their highest rainfall this year, some the wettest since records in the region began, 40 years ago. Sudan, Eritrea and Ethiopia have been severely affected and in Greater Darfur, northeast of Sudan, damage and destruction has affected homes, bridges and dams causing the displacement of over 170,000 people. It is often (wrongly) assumed that Africa is a dry continent, but it is a region of very mixed weather where the rainy season runs from July to November.

For satcom users, the complex weather systems and heavy rainfall can be a particular problem. Links are easily disrupted yet there is no other means of connectivity in such remote regions. And with the weather becoming increasingly unpredictable, satellite operators must have means to mitigate the effect of adverse weather conditions. For service efficiency, it's critical that networks are designed and adapted to manage the impact of weather events.

Emergence of LEO

It's not just GEO satellite operators that need to consider the effects of the weather. LEO is also gaining a significant foothold in the African region due to the huge cost savings that it can offer to users. LEO represents a huge growth area for the African satellite sector due to its lower operational cost. Couple this with the fact that the introduction of satellite-to-cellphone connectivity is fast approaching and that 76% of people across Africa have access to a mobile phone. The popularity of LEO is set to soar even higher and it's clear that the effects of the weather need to be managed across all orbits.

Managing the effects of weather

Rain fade is nothing new and satellite operators have a range of tools and techniques at their disposal to mitigate its effects. However, while legacy techniques such as fade margin, Uplink Power Control (UPC) and Adaptive Coding and Modulation (ACM) work well in traditional C and Ku-band satellite networks they're less effective when used in Ka and Q/V-bands, which are becoming increasingly widespread.

Diversity gateways can be implemented so that the operator can hot-switch from one to the other when impacted by the weather. However, HTS satellites require dozens or even hundreds of gateways and this becomes enormously expensive. By employing Smart Gateway Diversity, though, a few diversity gateways shared between many active gateways can have exactly the same effect yet reduce ground segment costs by around 40%.

AI-techniques combined with scaleable power of cloud-computing can be used to improve weather management, by leveraging it to optimise network design and also using AI-techniques to predict which gateways would likely be affected by weather before the event occurs.

AI techniques are used to assimilate huge volumes of historical and real-time data, for enhanced accuracy and specificity of predictions. AI identifies complex patterns that traditional models might miss. As well as providing precise, short- and near-term predictions for specific locations, AI also strengthens early warning systems for extreme weather events, enabling better disaster preparedness and management.

Utilising AI for network planning and management allows operators to design

> "Utilising AI for network planning and management allows operators to design robust networks to minimise impacts caused by regional weather patterns."

robust networks to minimise impacts caused by regional weather patterns and implement contingency plans well in advance, which can prevent service disruptions and ensure continuity of connectivity, whatever the weather. Not only does this enhance operational resilience, but it also optimises resource allocation, bringing cost benefits. With the ability to accurately forecast weather events, operators can manage traffic proactively, maximising network availability.

The need for high throughput services is only going to increase as satellite operators providing service in Africa seek to continue the quest to close digital divides and meet the demand for broadband-based services that is sweeping the continent. By employing technologies such as HTS and Smart Gateway Diversity and utilising AI-based tools for network design and weather management, they have the tools to keep costs down yet deliver a highly reliable service to their customers.

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Unlocking 5G monetization: an opportunity telcos can't afford to miss

Amir Mehmood, Director of Solution Engineering, Optiva

For the telecom sector, monetization is everything. That's not a cynical view, it's just a fact. Despite investing more than $1 trillion in network upgrades in the last several years, telcos are still falling short when building new revenue streams from the 5G rollout.

Challenger operators and over-the-top (OTT) services such as WhatsApp are claiming a bigger slice of the revenue pie, with some 75% of operators expressing concern about losing ground to OTT players. Therefore, telco's frustrations are understandable. They've poured money into costly infrastructure, helping push nations forward into the 5G era, and now they're in the Wild West — competing with players that, in some cases, didn't even exist a decade or two ago. So, what's a telco to do?

For starters, it's important to point out that there is still a market for basic, connectivity-driven 5G monetization. According to McKinsey, there is still some interest among younger generations for 5G booster packages, and 1 in 5 subscribers say they'd happily purchase 'business plan' bolt-ons to improve their connectivity. That's all well and good, but OTT players are offering services that extend far beyond mere bits and bytes, and that's where operators are losing out.

Network APIs can create new breeds of services that go beyond speed and bandwidth, which cloud providers and API aggregators are only too keen to exploit. Just as OTT platforms started eating operators' lunches in the voice and revenue space, cloud providers and API aggregators are looking to do the same here. Operators must act quickly to embrace the world of APIs and stay ahead of the curve if they want to retain their seat at the table.

That's being made easier through initiatives like CAMARA, the global telco API alliance. This alliance includes members from leading operators and the GSMA. It aims to help the telco industry make the most of the API revolution as it unfolds with technical support and guidelines. APIs are no longer viewed as just technical components to join digital dots; they're seen as substantial business assets that drive innovation and provide a genuine competitive edge.

For instance, usage patterns can be analyzed and roaming data can be gathered, paving the way for new services that cater to modern consumers' real-world needs. This might solve a problem that banks or travel agencies, for example, never even knew they had. It would allow them to provide location-based, context-rich services that drastically improve customer experience.

As new network API use cases evolve, they are being made available to enterprises and the entire development community, unlocking a new generation of 5G-driven applications where telcos could — and should — play a central role.

The path to monetization

So how do APIs unlock new revenue streams? In a nutshell, they allow telcos to interact with their network and data systems on a whole new level and pass on those benefits as a service to external developers. Telcos have access to untold pools of data, from SMS, voice, location, data usage, and user behavior. By surfacing this data and making it available through APIs, they can create desirable platforms for third-party developers and application owners to build new, improved services. In short, telcos need to position themselves as the API gatekeepers to the wealth of network data.

That, however, is easier said than done. Much of a telco's ability to tap into the benefits of network APIs will depend on their digital architecture. Bigger telcos are often stuck with legacy operations support systems (OSS) and business support systems (BSS) that aren't suited to digital, cloud-based data management. Smaller operators, such as mobile virtual operators (MVNOs), however, are agile enough to tap into more modern, cloud-native BSS systems, so they're likely to get the edge in the race to 5G monetization.

Why is BSS important?

BSS is like the brain and central nervous system of a telco's operations. It allows them to manage customer relationships, orchestrate billing, and fulfill orders. Older BSS systems were purpose-built with yesterday's needs in mind. So, they can't really cater to API integration or the personalization of subscriber services.

Telcos with these older systems in place either need to upgrade their core BSS, which is difficult for a large telco company, or bolt-on additional services, which can get messy and result in lots of data silos and disjointed processes. What's more, replacing one monolithic BSS with another — even with one that's more current — is almost guaranteed to become obsolete a few years later.

That's why scalable, customizable, cloud-based BSS systems are becoming increasingly vital. These are not static platforms but, instead, upgradable engines that can pivot and grow with the needs of operators, allowing them to deploy and take advantage of new APIs and plug-in functionality.

This kind of cloud-native architecture is already widely used across most industries, and now telcos have a reason to join the pack. It's also why many MVNOs and smaller challenger operators can compete and sometimes outcompete larger MNOs — they benefit from being digitally-native businesses with more flexibility and far less to lose.

Opportunities and barriers

It's worth noting that API monetization is not just about deploying the right technology. It's about fostering the right mentality. Telcos almost need to reinvent themselves for the modern age — instead of classifying themselves as network operators, they need to become software innovators and disruptors

Take roaming insights as an example. If a telco can gather and curate roaming data and turn it into useful, meaningful information, it could completely transform travel on various levels.

Retailers could pitch their products more timely, banks could leverage location data to improve their fraud detection processes, transport services could provide context-rich notifications and updates, and that's only scratching the surface. Governments and government agencies may also be interested in such functionality, such as enhancing emergency services by providing them with accurate location data. If telcos think outside the box, the potential monetization opportunities are practically limitless.

But it's this 'thinking outside the box' that may prove to be the sticking point for some. Thankfully, operators don't have to go it alone. There is an emerging trend toward growing partner ecosystems, including vendors, developers, and content providers, each with a stake in the same API landscape. With the right technology and ecosystem in place, the potential to capitalize on API exposure could extend into travel, banking, healthcare, and entertainment, where real-time data can dramatically enhance customer experiences and service levels.

The telecom sector may have been a passenger in the content monetization boom. However, when it comes to APIs and 5G monetization, they have the opportunity to grab the wheel and drive. ∎

Connecting Africa from orbit

Amidst a global digital revolution, Africa's connectivity levels lag behind the world. Will satellite prove instrumental in connecting the continent?

deas around connectivity are changing. Internet access is no longer considered a luxury, but an absolute necessity required for digital inclusion.

"I believe that connectivity is the right of every human being," asserts Sulaiman Al Ali, CEO of Thuraya, the satellite mobility arm of Yahsat Space Services, Space42. "Having access to internet, education, technology, and information is a basic right."

Africa is experiencing a digital transformation that is accelerating the continent's development and improving human well-being.

"However, according to the ITU's 'Facts and Figures 2023' report, only 37% of Africa's population had internet access in 2023," says Rhys Morgan, VP and General Manager EMEA, Media and Networks, Intelsat. "Despite the presence of 25 submarine cables and 1.2 million km of terrestrial fibre, Africa's optical fibre footprint remains inadequate, especially in rural areas, as highlighted by recent outages that hindered reliable connectivity across the continent.

A stable and resilient internet infrastructure is essential for economic growth and the functioning of modern societies."

From expanding connectivity, either as standalone satcoms packages or as backhaul support for mobile networks, through to empowering education, healthcare, e-governance and disaster recovery, satellite connectivity solutions are fostering economic growth and improving quality of life.

"Satellite connectivity solutions have proven to make a significant difference for many landlocked countries in Africa, where the connectivity via fibre can be patchy due to geographically challenged terrains," reports Simon Gatty-Saunt, VP, Sales, Enterprise & Cloud, Europe and Africa at SES.

"Satellite connectivity will play a crucial role if there is to be a digital revolution across Africa, as large geographical segments represented by rural areas – and even many underserved suburban areas and medium sized towns – are still reliant on pre-4G technology," adds Ismail Patel, Senior

Analyst - Enterprise Mobility, Cloud, EMEA, GlobalData Technology.

Meeting demand

High Throughput Satellites (HTS) were big news back in the 2010s, with wild promises of universal connectivity claimed by some providers.

"HTS, which can operate in both GEO and MEO providing up to multi-Gbps, have been designed to reliably improve signal quality and capacity, especially in areas with high demand for network services and data applications," says Gatty-Saunt. "For example, we've been working with Kamoa Copper in the Democratic Republic of Congo for more than five years to support their mining operations' digital shift with seamless connectivity in remote sites."

"Since their launch a decade ago, high-throughput satellites (HTS) have delivered more data at lower cost per megabit than previous spacecraft, opening up a range of services and

capabilities that were not possible before, and helping respond to some of Africa's challenges," notes Morgan. "Back then, many telecom companies were looking carefully at the cost of operating their networks, while expanding mobile networks was often impacted by the slow pace of traditional infrastructure deployment methods. With HTS offering 3-5 times the efficiency of earlier platforms, these companies have seen the cost of ownership go down and have been thus able to expand their networks into new areas where demand for bandwidth has not been met."

However, "it's always been a challenge for satellite operators to define where they want to install capacity, and to make sure that that capacity is adequate," says Vaibhav Magow, Vice President International Division, Hughes Network Systems. "There are a lot of HTS over Africa already, but the demand is such that it fills up quickly."

With the first of its kind launched in 2005, HTS offer much higher bandwidth than traditional geostationary (GEO) satellites, enabling more people and businesses to access internet services. They have proven instrumental in connecting remote areas, especially where terrestrial infrastructure is unavailable or impractical. HTS boast a significantly lower cost-per-bit than traditional geostationary satellites, making services more affordable for businesses, schools, and governments; and facilitating backhaul for mobile networks.

However, while HTS have made significant strides in expanding connectivity across Africa, they have not yet delivered universal connectivity. Despite lower operational costs, HTS-based internet services remain expensive for individual users and small businesses in low-income regions, and equipment costs and subscription fees can be prohibitive. Additionally, while HTS improve connectivity, they still depend on complementary infrastructure, such as local Wi-Fi networks or mobile towers, which are often absent in remote areas – where power supply issues also remain a challenge.

"HTS are simply higher throughput than the previous generation of geostationary satellites - the latencies are still the same, typically in the region of 600ms," notes Rolf Mendelsohn, CTO at Paratus. "That means that the user experience is slow, the quality of experience is completely different compared with fibre optic or wireless networks, or low Earth orbit (LEO) satellites."

LEO satellites, on the other hand, are poised to address many of the challenges faced by HTS in Africa, offering potential solutions to some of the key barriers to connectivity.

"LEO will address far more use cases, or different kinds of use cases," notes Magow. "I think one of the biggest benefits that customers would see with LEO is the ease of VSAT installation. For certain attributes, LEO satellites can provide better use cases than GEO."

"The rise of LEO satellites has created a potential solution to the problem of connectivity in underserved and unserved areas," adds Patel. "The expectation of the industry is that the launch of further LEOs will drive down the per-MB price of satellite connectivity further, which will help ultra-rural communities with first-time broadband-grade connectivity, and businesses and non-urban dwellers with back-up connectivity."

For one, LEO satellites operate much closer to Earth (500-2,000km altitude) compared to geostationary HTS (36,000km), resulting in lower latency (10-20ms compared to 600ms for HTS), enabling smoother real-time applications like video conferencing, online gaming, and telemedicine. Then there's the improved coverage - LEO constellations can provide seamless coverage by forming a network of interconnected satellites, which makes them particularly suitable for reaching remote and underserved regions where HTS or terrestrial networks have limited reach. Easily scalable with the addition of new satellites into the constellation, and with mass production reducing costs over time, LEO satellites can provide reliable, affordable backhaul connectivity to rural mobile networks, enhancing the performance of 4G and 5G in remote areas.

"LEO is a real game changer. SpaceX has a massive constellation of satellites providing an inordinate amount of capacity to the African continent at high speeds and at low latencies," confirms Mendelsohn. "The experience for a user anywhere on the continent - or anywhere in the world for that matter - is comparable to the experience which is provided on a wireless or a fibre optic network."

"We've seen government applications from firefighting trucks requiring internet communications for firefighters, through to connecting first responders and supplying citizen services," says Magow. "Installing a GEO antenna on these vehicles is extremely expensive and not particularly practical, but LEO antennas are much more cost effective and lightweight. For many of these customers who don't require the service all the time – only for emergencies – the service cost is not a huge issue, but the equipment cost certainly is."

LEO systems are not without their own limitations, though, and their success depends on overcoming significant technical, economic, and logistical hurdles – just like their geostationary counterparts. However, if LEO operators can lower the cost of terminals and offer flexible pricing models, they may succeed in reaching underserved populations.

Hurdles to adoption

Connecting all of Africa from orbit requires several key hurdles spanning technical, economic, regulatory, and social domains, to be addressed. This necessitates a coordinated approach that combines innovative technologies, strategic policies, and collaborative efforts between stakeholders.

Whether we look at the user equipment or subscription fees, satellite services remain expensive for many in Africa, and the low-income populations - often those who most need connectivity - cannot afford these services without subsidies.

"It remains somewhat unaffordable in a number of markets," admits Mendelsohn. "If you look at these satellite packages, the minimum cost that they're going in at is about $50 a month for broadband. That's expensive for a lot of Africans, especially in comparison with mobile networks, which still provide good speeds, but for about US$5 per month."

"I think we all agree that after COVID-19, everybody deserves to be connected," notes Magow. "If you look at other parts of the world, even in Asia Pacific, telecommunication companies tend to cover 85-90% of the geographical area – they cannot reach 100%. As such, there's always a need to deliver broadband via satellite that is affordable for the average African. We've made great strides in affordable connectivity in recent years, but it's not yet enough."

Magow recalls a previous project from India, wherein Hughes planned to connect rural regions via satellite. Although the company was able to deliver and install VSATs in the required regions, and at a low price point, the end users lacked the devices to connect to the internet.

However, "today, so many Africans have mobile phones capable of connecting to the internet through community WiFi projects that we see great uptake of these services. All over, rural populations are using VSAT connectivity, at an affordable price, for 20 minutes a day, for example. Satellite has really made a difference in bringing connectivity to remote and rural communities."

While affordability remains a pressing concern, hope is on the horizon. With the new wave of LEO constellations, prices are falling; combined with flexible Pay-As-You-Go models tailored to African markets, this can make services more accessible. As Magow highlighted, community WiFi hubs can help share the costs, which can be further supported through subsidies for services, devices and equipment.

"On the ground, we need to see more collaborations between the private and the public segments," concurs Al Ali. "If we can see more collaboration between the public and private segments, I think the obstacles will be eased."

One example is Space42's projects in Zimbabwe, where the company connected several public libraries via satellite. These libraries now have access to materials from remote locations, thanks to a collaboration with the government.

"In some countries, there are a huge amount of taxes or fees due for installing satellite connectivity, and the end user is the one who ends up paying. In Africa, where affordability is still a real challenge, the easier you make it for the public sector to provide an affordable service, the more connected people you will have," adds Al Ali.

Some consider the regulatory environment in Africa's satellite industry as another hurdle to overcome for the effective delivery of satcoms. Evolving rapidly, driven by technological advancements, increased demand for connectivity, and global trends in space governance, regulations

are shaping the deployment, operation, and growth of satellite services across the continent.

The satellite industry in Africa is experiencing exciting growth and transformation, aligning with the vision of 'Agenda 2063: the Africa We Want,' reports Morgan: "many African governments are actively reviewing and updating their regulatory framework to foster innovation (and reflect advancements in space technology), and ensure security and align with international standards. These changes are paving the way for a more competitive and dynamic satellite market across the continent."

However, Mendelsohn highlights that "the main hurdle that a number of the LEO operators are facing are regulatory. A number of countries have already accepted the LEO satellite systems and are open to these international players, while others are still working through the process."

Today, African countries are revising their policies on spectrum allocation to accommodate the growing demand for satellite connectivity, especially for high-demand frequency bands like Ku, Ka, and C-bands. This improved spectrum management can reduce interference between satellite and terrestrial networks, and simplify licensing for satellite operators, encouraging investment.

However, "the biggest assistance that regulatory environments provide us is the ability to provide services at a better price point," says Magow. "The focus needs to change from spectrum allocations to how they can help reduce the fees, to make it more affordable. Delivering satcoms services requires a lot of licences and takes a lot of time due to the level of bureaucracy in many countries. If the regulators were to focus on that, have more conversations with the people involved, that would improve things."

To 2025 – and beyond

Africa's dynamic satellite market continues to evolve, grow and expand – and the horizon looks promising.

"I think in 2025, we'll see faster speeds achieved via satellite. In certain areas, we're seeing the maturity of the market coming through, and services are becoming more affordable. Telcos are moving into rural regions, and we want to help enable that," says Magow. "The number one priority that we have when it comes to internet connectivity is to serve more communities and with better speeds."

"One major trend that we see on the African continent is what I call the internet moving south," adds Mendelsohn. "In the past, we relied on connectivity from Europe and the Americas. Today, we've got more content in several major tier one data centre locations in Africa, so there is less data being served out of Europe, saving costs. And now we have LEO satellites to augment these services. It's a very exciting time for Africa."

Looking to the near future, Al Ali expects significant market consolidation: "this is the result of the pressure coming from increasing ground segment requirements as well as on-orbit competition. I think 2025-2026 will be a tipping point for the whole satellite industry - a lot of projects are due for delivery in 2026, everything from new constellations through to NTNs. This will be huge."

"I would most like to see more of the countries pass regulations that allow LEO systems to operate – only around one third have to date. Whereas, if you look at South America, almost all countries have granted licensing for LEO systems," shares Mendelsohn. "To get ahead, we need to be more flexible in terms of regulations to allow these constellations to operate, even if it's on a trial basis – despite local competition concerns. All those things can be navigated, but there needs to be a willingness to allow them to operate." ∎

Reduce, reuse, recycle: greening telecommunications

David Evans, Head of Global Asset Recovery and Services, TXO

Reduce, reuse, recycle: these are words to live by. Reduce talks about cutting down on what you manufacture for use, thereby reducing the carbon footprint. Reusing assets that have already been manufactured is another way to minimise carbon emissions, reducing the need for more base materials or residual metals to be extracted from the Earth. And, if there is no reuse option for an asset that was built for that specific purpose, there's recycling - taking the materials back to be reused in manufacturing, to produce another asset.

Our founder saw a gap in the market 21 years ago; he bought lots of spare telecommunications parts from vendors like Ericsson and stored them in his garage. In 2005, of course, Hurricane Katrina hit, and communications infrastructure took huge amounts of damage. He sold all this equipment to the US market, made a small fortune, and founded TXO on the principle of equipment reuse.

The COVID-19 pandemic has had a massive influence on the green market in recent years. During that time, operators bought surplus stock, and manufacturing slowed to a standstill in some regions. In 2024, some of that pre-ordered and paid for stock is now finally being delivered. But it's of no use to the operators, it's been written off. That surplus provides us with an opportunity to repurpose the parts, to ship them to other parts of the world like Africa where they're very much needed – a much better solution than leaving it to sit and gather dust.

The green economy

Africa's fibre networks are their legacy networks and are typically not supported by original equipment manufacturers (OEMs). There comes a time when every network reaches end of life support, and then the operator must choose what to do next. Typically, this results in the decision to upgrade – whether it's needed (or affordable) or not. When the network is upgraded, or indeed when a big merger takes place, a huge amount of equipment – that works perfectly well – becomes available. Those networks are becoming one of our largest sources of equipment, particularly for the European market, where operators are working to maintain the types of networks that Africa is instead choosing to upgrade.

The drive for sustainability today in Africa is not on par with that of Europe. There's less focus on carbon emissions and other environmental challenges. However, the market is evolving, and in time, we believe Africa will shift from these rapid upgrade projects to network extension and maintenance projects instead. Some of the larger operators are already making commitments for reuse; Orange recently committed to 15% equipment reuse for their networks going forwards to demonstrate the importance of sustainability.

In fact, around 20% of Africa's operators are reusing equipment now. They stand to benefit from around 80% savings on costs compared with buying new, as well as taking back control of duty costs – a win for operators and for the environment.

However, there are two aspects of the circular economy to consider: you either feed it, or you consume from it. For example, there's a large Central European operator that is very pro circular economy, who speaks about generating revenue, being sustainable, and enabling operators, etc. When we asked what spares they need to maintain their network, they said that they would not utilise used equipment due to trust issues; customers believed that used equipment would result in a lower quality network. This isn't true at all thanks to stringent quality control practices and warranties, but it's a challenging mindset to change.

The greater good

Our core business model is that we will resell what you don't need to generate the revenue for the parts you do need. That cost model in Africa is fantastic, but – as evidenced by our Central European colleagues - it's important to ensure that the parts are what they should be, and to maintain stringent standards for quality control with extensive testing.

It's a sad fact that, even in 2024, many of Africa's schools, healthcare providers, educational institutions, etc. cannot take part in the digital economy, and do not benefit from the internet, because the state-of-the-art equipment required for connectivity is too expensive.

Thus, the potential for local businesses, schools, and hospitals, for example, to use secondary equipment to provide services in remote and rural locations is huge. If the savings generated by reusing equipment are actually passed on – and that's a big if in some cases – it could significantly reduce the digital divide and provide greater opportunities for the digitally disadvantaged.

The future is circular

We strongly believe in the local recycling of components and materials - we call that urban mining. One of our German businesses is actively taking apart a copper installation that has been de-powered. We're on our 200th ton of copper cable recovered from the site, and we will use that copper locally. By doing that, we double the carbon emission saving compared with reusing elsewhere.

Repair is really important to both the global and African markets: especially given that OEM support will disappear soon amidst the exciting new 5G developments. We're expecting as a result that we'll be receiving many requests to help maintain the networks.

New technologies will prove a boon for facility maintenance. One of the key advancements for telecommunications tower structures is the use of AI for predictive maintenance. Before this, engineers were replacing all the parts in a particular unit due to a single part fault – an unsustainable waste! Now, AI will provide a broader picture of what fails, when, and why. With it, engineers are now removing and replacing individual parts, preventing costly network failure. However, we're finding that some of these parts have another year or two of lifespan, so this is inducing a huge new cost for operators. For the circular economy, it's a bit of a double-edged sword – but one that keeps the networks up, and at least reduces the number of parts going to waste. ∎
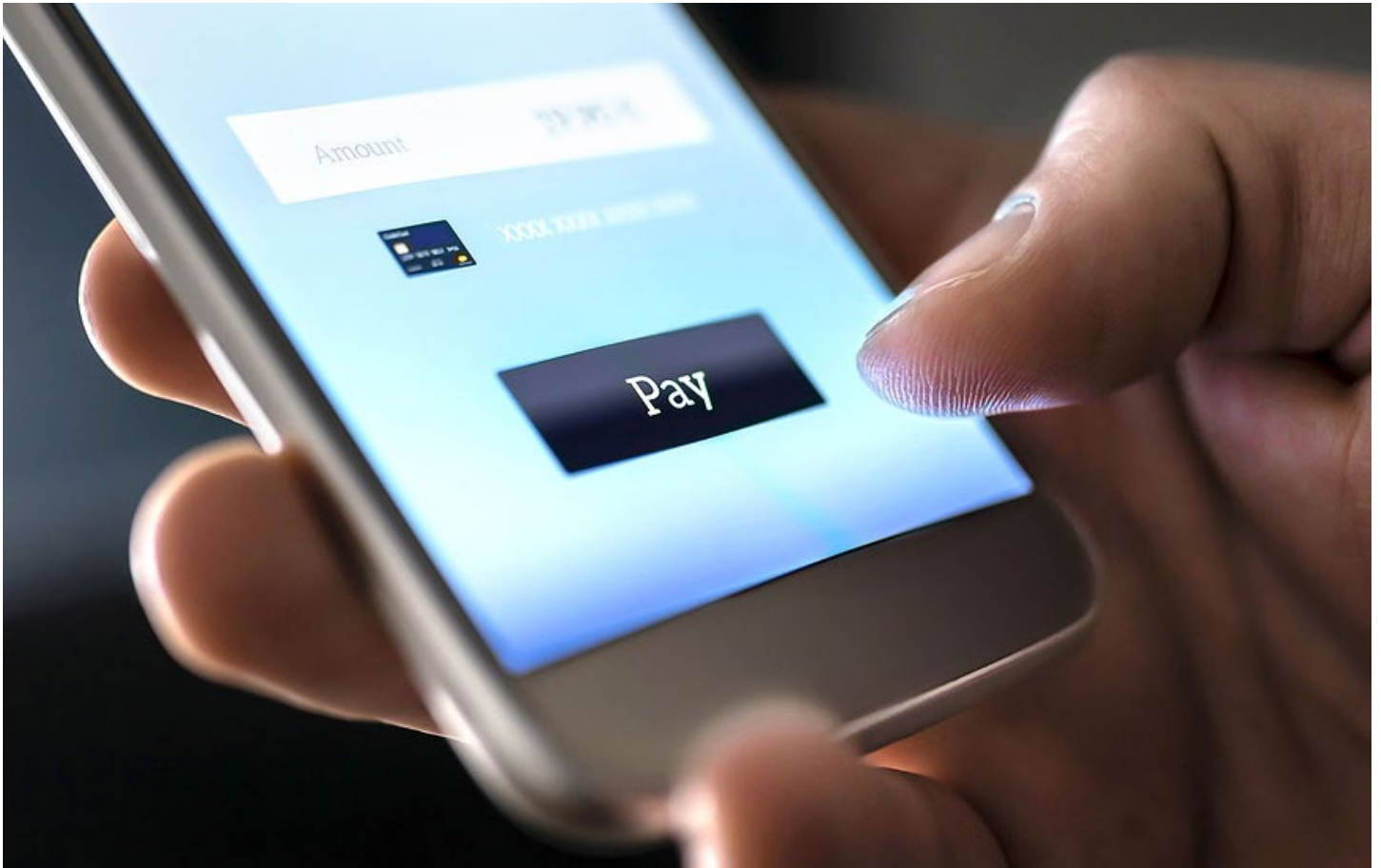
IS mobile money bridging the digital divide?

For all the benefits delivered by mobile money across the continent, it remains unclear whether there is any notable impact on enhancing connectivity...

There's no denying the popularity of mobile money across the continent.

The GSMA reports that registered mobile money accounts grew 12% year-on-year to 1.75 billion in 2023, with some 435 million active by year-end – a 9% annual rise. Transaction volumes grew by 14% year-on-year, while, importantly for the operators, average revenue per user was up from $2.2 in September 2022 to $3.2 in June 2023 – resulting in higher profitability.

Indeed, mobile money has expanded access to financial services for millions of Africans who previously had restricted or no access to traditional banking. Often more accessible than traditional banking, especially in remote areas, mobile money allows users to manage all aspects of their finances without needing to visit a physical bank branch. And, by facilitating easier transactions, small businesses are empowered, delivering a much-needed economic boost.

Bridging the divide

It's a popular notion that the widespread adoption of mobile money has helped drive a reduction in the digital divide.

"By bringing financial services to remote and underserved communities, mobile money is helping to bridge the digital divide in Africa," asserts CG Selva Ganesh, VP, CEO South Africa at In2IT Technologies. "It allows people who have been excluded from the formal financial system to access essential services like payments, savings, and loans. This not only enhances their financial security but also encourages the growth of local economies and supports broader digital adoption."

Wiza Jalakasi, Director of Africa Market Development at EBANX, agrees that mobile money is stepping up to bridge the divide, but "within the expectations set for it. While it won't solve the problem alone, it can significantly speed up progress as it has been doing. Very much driven by mobile money, digital payments penetration in sub-Saharan Africa doubled in less than eight years, from 23% to 46%. This strong adoption, combined

with higher internet access, is unlocking digital commerce – which is growing faster across five of the main African countries than it is in the USA, or European countries. Addressing challenges like interoperability between platforms, providers, and countries will further boost not only Africa's digital inclusion but also its economy."

Claire Maslen, Programme Director for Commerce and Payments, Mobile Ecosystem Forum (MEF), however, says that the debate around bridging the digital divide is far wider than just offering mobile money or mobile financial services to users.

"To start to close the digital gap, governments, authorities, NGOs and the private sector must look at the investment needed to provide broadband and connectivity, access to handsets and devices, and education on how best to use the wealth of information that exists on the internet," says Maslen.

Mobile money has been transformative for sure; however, challenges remain in network coverage and reliability, handset affordability, and security.

"Mobile money has certainly been a success story in many ways, providing financial services to millions of unbanked Africans and significantly contributing to economic inclusion," states Ganesh. "However, challenges remain, such as limited access in some rural areas and digital literacy gaps, which prevent it from fully bridging the digital divide across the continent."

Indeed, Maslen believes that mobile money is just one facet to solving the digital divide: "the main requirement for all markets is investment in network infrastructure. Once a reliable and robust infrastructure is in place not only will users have easier access to banking and financial services, but they will also have access to education and employment opportunities – which with the right knowledge and support – will in turn create inclusion and equity for communities. Mobile money in all markets where it exists, has certainly made strides to achieving financial inclusion."

Those who need it most

With these remaining challenges limitations in mind, the jury is out on whether mobile money is reaching those who need it most.

"For women, mobile money has provided financial independence and greater economic participation. The disabled population has also benefited from mobile money's ability to facilitate financial transactions without needing to visit physical bank branches," shares Barnwell. "While there is always room for improvement, the progress made so far is a testament to the positive impact mobile money has had on these underserved groups. Continued efforts to improve digital literacy, affordability, and tailored services will ensure that mobile money reaches even more people in need."

Alas, more men than women continue to have access to mobile money.

"The mobile money gender gap is yet to be closed, reported by the GSMA to be as high as 30% in Senegal and 46% in Nigeria," confirms Kirsten Wortmann, Regional Director, Africa, Paymentology. "The GSMA also reported that a lack of knowledge

and skills related to mobile money is an important barrier to higher adoption among women. Mobile money operators can reduce this barrier by providing information and training which is tailored to the female demographic."

"I think it's important when designing and developing mobile money solutions, product teams explicitly address inclusion issues, rather than assume or imply these segments will be reached," says Maslen. "To address inclusion, it helps if the teams are diverse – our organisations should be representative of the communities we serve."

"While mobile money has expanded access to financial services for many, it hasn't fully reached all those who need it most," agrees Ganesh. "Overcoming obstacles like lower phone ownership among women, accessibility issues for disabled users, and cultural barriers requires targeted initiatives, including gender-sensitive designs and more inclusive financial literacy programmes."

Movers and shakers

On a roll now, mobile money in Africa has evolved significantly in recent years, moving beyond person-to-person transfers to include a wide range of financial services such as savings accounts, microloans, insurance, and investment options.

"Telecom providers, institutions and fintechs across Africa have recognised the growing momentum of mobile money and are expanding their mobile money offerings with new products and VAS including next-generation payments technology," says Wortmann. "For example, Zambian fintech Union54 recently added virtual cards to its ChitChat messaging and mobile money platform, enabling users to instantly issue virtual Mastercard cards, providing a convenient and fraud-resistant payment option."

The impact on MNOs has been profound.

"Mobile money has become a critical revenue stream, often surpassing traditional services like voice and SMS," says Barnwell. "It has allowed operators to engage with customers more deeply, reduce churn, and open up new business opportunities. Overall, the evolution of mobile money has solidified the position of MNOs as key players in the financial landscape, driving both profitability and customer loyalty."

"It has also intensified competition with fintech companies and traditional banks, pushing operators to innovate continually," adds Ganesh.

Recent years have seen mobile money evolve not only in terms of how users access it from the early days of USSD to the current developments around super apps.

"Perhaps more interesting though is how the ecosystem is developing," says Maslen. "The operators have led the model for many years. But what we're starting to see are developments around interoperable systems and more parties joining the eco-system. The opportunities for banks to reach typically underserved communities, or for fintechs to work with traditional banks to deliver rapid scale often at lower cost, is yet untapped."

But exactly how successful has mobile money

been for improving MNO profits? According to Barnwell, "extraordinarily."

"By offering essential financial services to the unbanked and underbanked populations, operators have tapped into a vast and growing market. The simplicity and accessibility of mobile money have led to widespread adoption, driving significant increases in transaction volumes and, consequently, revenues," says Barnwell.

To maximise its potential, says Ganesh, MNOs should explore cross-border partnerships and expand into international remittances, as well as enhance the user experience through robust security measures and user-friendly interfaces to build trust and attract more customers.

Barnwell adds: "to further capitalise on this potential, MNOs should continue to innovate by expanding their service offerings — introducing more sophisticated financial products like microloans, investments, and insurance. Additionally, MNOs can leverage strategic partnerships with fintech companies and traditional banks to enhance service delivery and reach new customer segments, thus maximizing the full potential of mobile money."

A hybrid future

With success already in hand, what does the future hold for Africa's mobile money ecosystem?

"I expect mobile money to continue its strong growth trajectory across Africa, especially in regions like East Africa, which has already seen substantial adoption," shares Ganesh. "Countries like Kenya, Tanzania, and Uganda will likely lead in further adoption due to their established mobile money ecosystems and supportive regulatory environments. However, regions such as Central and West Africa may continue to be underserved due to infrastructural challenges and lower mobile penetration rates."

Looking ahead, Barnwell expects significant growth in West Africa, particularly in Nigeria and Ghana, where regulatory environments are becoming more conducive.

"East Africa, where mobile money has already deeply penetrated the market, will continue to innovate and set the pace for mobile money services. However, some regions, such as Central Africa, may still face challenges due to political instability and weaker infrastructure, which could slow adoption," says Barnwell. "Nonetheless, I remain optimistic that ongoing investment in infrastructure and favourable regulatory changes will gradually bring mobile money to even these underserved regions."

"Regulatory support of mobile money operators and their fintech partners will also be a crucial catalyst for adoption over the next five years," adds Wortmann. "Regulatory guidelines differ vastly across Africa, and countries with guidelines that are not cloud-friendly, requiring on-soil hardware, hamper the adoption of next-generation payment technologies among unbanked demographics. Jurisdictions with regulations friendly to the cutting-edge of fintech will enable mobile money to continue its high pace of innovation and provide a wider range of accessible financial services to traditionally

unbanked groups."

According to Maslen, while some of the early mobile money deployments date back to 2001 in Asia, the most cited and significant deployment for scale of mobile money came from M-Pesa in Kenya in 2007.

"Now two thirds of all mobile money transactions globally, occur in sub-Saharan Africa," says Maslen. "I think we will see the need for interoperability increase, as users travel more widely and if employment opportunities don't exist in your home country, it is obvious people will travel and the need for cheap and fast remittance services will be in demand."

As Africa's banking sector increasingly engages with fintech, the landscape is likely to evolve significantly, and soon. Banks and MNOs are already forming partnerships to leverage each other's strengths; MNOs bring extensive mobile networks and customer reach, while banks offer regulatory expertise and comprehensive financial services. Partnerships like those between M-Pesa and various banks have allowed for integrated financial services that benefit from both parties' capabilities.

With both banks and MNOs aiming to enhance financial inclusion, collaboration can provide a more seamless and extensive range of services to underserved populations, combining the outreach of mobile networks with the financial expertise of banks. A hybrid model can thus offer the convenience of using mobile technology for transactions and the security and trust associated with traditional banks for more complex financial services.

"A hybrid or partnership model is the most likely outcome," asserts Barnwell. "Traditional banks bring regulatory expertise, financial knowledge, and access to capital, while MNOs offer unmatched reach and customer engagement, especially in rural and underserved areas. By collaborating, these entities can create a more inclusive and robust financial ecosystem. Such partnerships would leverage the strengths of both MNOs and banks, ensuring that fintech services continue to thrive across the continent while also benefiting from the trust and infrastructure that banks provide. This model not only promises to enhance financial inclusion but also drives innovation and growth in the financial sector."

"Partnerships between MNOs, fintechs, and banks are crucial, combining the agility and innovation of fintechs with the trust and reach of traditional banks," agrees Ganesh. "This collaboration can accelerate financial inclusion and provide more comprehensive financial services across the continent."

Banks are also increasingly partnering with fintech firms to integrate new technologies and innovative solutions into their services, including digital wallets, AI-driven financial management tools, and blockchain-based services.

"In other markets we have seen many successful partnerships from both fintechs and banks, and banks and operators," says Maslen. "If created transparently with clear governance, all parties involved serve to gain. Good partnership models allow for each party to grow from the others' area of expertise, whilst allowing their investment and focus to remain on their core business. Reaching new customer segments, delivering in new markets or even stretching into adjacent sectors is definitely something where partnership model could be attractive."

Indeed, the future of fintech in Africa is likely to be characterised by a hybrid or partnership model between banks, fintechs and MNOs. rather than a complete shift from MNOs to traditional banks. Collaboration has the power to drive innovation, expand financial inclusion, and enhance the overall financial services ecosystem. ∎

Nigeria scores solar-powered public Wi-Fi courtesy of HFCL

Nigeria, known as Africa's largest oil producer, faces formidable challenges due to its poor internet infrastructure. The country grapples with building a robust connectivity network, complicated by challenging geography.

The digital divide has been a persistent challenge in the country, limiting widespread internet access for a significant portion of the population. Despite the increasing ownership of mobile devices, accessibility and affordability remain key barriers, particularly in rural areas and underserved urban communities.

Amidst this backdrop, the demand for internet access for e-commerce, education, and communication surged. In a landscape where reliable internet access remains a pressing need, the deployment of public Wi-Fi solutions in Nigeria stands as a pivotal step towards bridging the digital gap as a response to escalating demands for e-commerce, education, and communication.

Power problems

The primary impediment in providing seamless Wi-Fi connectivity was Nigeria's persistent erratic power supply. This instability hindered network expansion into rural areas and increased operational costs for network operators. The unreliability of electricity hampers the establishment of a robust connectivity network crucial for meeting escalating demands in e-commerce, education, and communication sectors. Limited backhaul options further compound this issue, creating a pressing need for innovative solutions to bridge the digital gap and stimulate socio-economic growth.

The decision to deploy public Wi-Fi therefore focused on finding a solar-powered solution capable of providing sustained power to the network, ensuring seamless connectivity despite the challenges posed by Nigeria's unreliable power infrastructure.

Sustainable public Wi-Fi

HFCL embarked on a pioneering endeavour, collaborating with local ISPs to implement a comprehensive public Wi-Fi solution. This deployment aimed to bridge the connectivity gap by leveraging scalable technology tailored to the unique characteristics of each area, offering seamless and ubiquitous internet access to communities where traditional connectivity options were limited.

Accordingly, HFCL strategically deployed a network of indoor and outdoor Wi-Fi Access Points across high traffic locations within Nigeria. The deployment of Indoor Access Points ensured reliable connectivity within confined areas. Meanwhile, Outdoor Access Points were tailored to withstand harsh environmental conditions, providing seamless connectivity in open spaces despite challenging weather.

HFCL integrated Smart Solar PoE Power Supply Devices within the network infrastructure, which operates on the principle of SMPS (Switched Mode Power Supply), converting solar and AC mains input into a constant 48V DC output. It features a built-in LiFePO4 battery, offering 12 hours of backup for POE equipment, thereby ensuring uninterrupted connectivity even during power outages.

This innovative approach not only ensured consistent operation of the Wi-Fi Access Points but also aligned with environmental sustainability goals, reducing dependency on conventional power sources and contributing to a greener, more resilient network infrastructure. It was more like a clean energy power solution while simultaneously delivering free internet access.

Revolutionising connectivity

The deployment of indoor and outdoor Wi-Fi Access Points significantly expanded connectivity reach across targeted locations in Nigeria, bridging the gap for communities with limited connectivity options.

Despite initial concerns about data costs being prohibitive, the increased availability of public Wi-Fi solutions facilitated greater access to information for individuals who previously found data expenses too burdensome. By providing equitable access to information and online resources, these solutions played a crucial role in reducing disparities and fostering digital inclusion among diverse socioeconomic groups, thereby narrowing the divide in information accessibility.

Integration of Smart Solar PoE power supply devices fortified network stability, mitigating disruptions caused by erratic power supply. Incorporation of solar solution based advanced PoE devices aligned with environmental sustainability goals, reducing dependency on conventional power sources.

The seamless integration of solutions resulted in a frictionless user experience, eliminating connectivity barriers and streamlining access to internet services. Indeed, the solutions played a pivotal role in enhancing socio-economic opportunities by providing reliable and accessible internet access for e-commerce, education, and communication. Overall, this transformative deployment signifies a monumental leap in Nigeria's connectivity landscape, facilitating efficient, secure, and widespread internet access crucial for empowering communities and driving socio-economic progress.

"Through our deployment of public Wi-Fi and Smart Solar PoE solutions in Nigeria, we've tackled power challenges head-on. Our strategic approach ensured uninterrupted internet access, bridging connectivity gaps and optimising network performance. Coupled with a focus on sustainable solutions, this solution supports reliable connectivity, transforming the digital landscape for enhanced socio-economic growth," said Suneet Saxena, Senior VP, Sales & Business Development, HFCL. ∎

BLU benefits from 'LTE in a Box'

In June 2013, BLU was one of three Ghanaian-owned companies to receive a Broadband Wireless Access (BWA) license to launch a new 4G LTE network. Despite Ghana's already saturated mobile market, the BWA licenses were only made available to companies that were 100% owned and operated in Ghana.

The license came with a strict deadline to launch LTE services within 18 months of the award date. BLU's leadership knew that they would face fierce competition from the other LTE license holders, and that it would not simply suffice to be the first to enter the new market; new customers and their loyalty would be won on service differentiation, network speed and reliability, and affordability.

A proven, easy-to-install solution that would not only meet their ambitious deadlines, but that would also enable them to capture the greatest market share early on by delivering the most compelling service offerings, a fast, reliable network, and a sophisticated customer experience, was required. BLU also wanted assurance in the investment of a long-term core network solution that could readily adapt and evolve in a fast-changing market.

LTE in a box

BLU chose Alepo to provide a pre-integrated core network and IT solution for LTE and WiFi, along with Alepo's expert professional services to connect the solution smoothly into BLU's multi-vendor network environment. Alepo already offered proven integration with BLU's LTE RAN vendor (Huawei) and WiFi Hotspots vendor (Airspan) in production environments, which contributed to a faster and smoother deployment.

"With our tight deployment deadlines, it was imperative that we choose a solutions provider like Alepo, whose proven, market-ready solutions meet our immediate goals today while also being able to flex and adapt to our ever-evolving network and business," said Ekow Thomson, COO at BLU.

Alepo delivered to BLU a complete 'LTE in a Box' solution that offered a rapid deployment time for advanced LTE and WiFi Hotspot data services. Being tested and proven pre-integration enabled a faster deployment time – in most cases, 90 days or less from contract signing to launch.

The solution combined Alepo's high-performance Evolved Packet Core, including advanced policy and charging control (PCRF, OCS), Alepo's BSS/OSS suite, Service Enabler, and Alepo's Carrier AAA infrastructure together on a single, pre-integrated platform. The end-to-end solution gave BLU full support for the delivery, monetisation, and customer experience of multi-play LTE and WiFi hotspot services.

Indeed, BLU can now launch the most advanced and differentiated LTE and WiFi hotspot data services, including Zero-Rated apps; time and volume-based data plan; holiday-specific rates and charging; data gifting and sharing across accounts; WiFi Hotspot access with LTE subscription; WiFi Hotspot pass for new or casual users; tiered Video on Demand and content packages; group and family plans; turbo boost – bandwidth on demand; and rollover unused time or volume.

As part of the complete, pre-integrated solution delivered to BLU, Alepo also implemented its customer selfcare tools: a web portal and a mobile app for Androids and iPhones. Here, BLU subscribers can register for services, purchase new or additional packages, access BLU's Video on Demand portal, top up or pay invoices, and fully manage their accounts in a completely convenient and independent way, whether on LTE or WiFi.

Day one monetisation

Alepo's 'LTE in a Box' gives operators everything they need to deliver and monetise data services, so that they can make their networks profitable from day one. Alepo works in a truly agile development environment so that operators can launch quickly without being blocked by customisations, which are rolled out according to an established timetable.

As part of its competitive differentiation, BLU wanted to launch with Video on Demand services over LTE. To do this, BLU deployed a full video content delivery system from GorillaBox, which required provisioning, as well as advanced policy and charging to ensure accurate delivery and monetisation of the services. Alepo provided interoperability testing and integration with GorillaBox to create 'BluBox.' Subscribers can purchase different packages of IPTV services through the Alepo Registration Portal in conjunction with their LTE data services, all of which can be managed through the Alepo Web Self-Care portal. BLU customers can also access limited free content in BluBox before purchasing an IPTV package.

With the 'LTE in a Box,' BLU was assured in its immediate needs and long-term investment; and was able to launch ahead of its regulatory deadline with the most advanced 4G data plans, including video on demand, tiered bandwidth speeds, app bundles, and more. ■

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Corero CORE offers cloud-based infrastructure protection

Corero Network Security has launched a new cloud-based availability protection platform, CORE, designed to seamlessly enhance a company's existing security infrastructure. It delivers advanced defence, leveraging existing infrastructure, offering flexibility and cost-efficiency to keep an organization secure and agile.

Corero CORE leverages comprehensive data lake(s) by gathering feeds from multiple sources across a network and generating AI/ML-assisted insights, turning isolated security events into actionable intelligence. This enables smarter coordination across a customer's network, making their ecosystem more resilient against threats to service availability.

Vendor-agnostic and highly adaptive, Corero CORE effortlessly integrates with third-party tools and existing infrastructure. In its initial release, CORE delivers real-time rich traffic analytics, threat intelligence, application layer protection, and anti-bot DDoS defense, ensuring services are available and secure.

"We are incredibly excited to bring this cutting-edge platform to market, expanding our capabilities and helping customers optimize their security investments," said Carl Herberger, Chief Executive Officer at Corero Network Security.

Designed as a SaaS platform for ultimate flexibility, Corero CORE bridges visibility and protection gaps without adding complexity. It optimizes security investments and offers peace of mind with a subscription-based model that reduces vendor lock-in. Ideal for businesses seeking enhanced availability and traffic visibility, Corero CORE allows organizations to stay ahead of threats and maximize their network's potential — all without additional hardware.

Smallest and lowest power SiP for cellular IoT

Nordic Semiconductor has announced the general availability of its nRF9151, a system-in-package (SiP) it claims offers 'the smallest and lowest power' solution for cellular Internet of Things (IoT) projects — which can be used as a dedicated modem or an application microcontroller.

The nRF9151 SiP, measuring just 12×11mm, features a single Arm Cortex-M33 core running at up to 64MHz, 256kB of static RAM (SRAM), and 1MB of flash memory, plus Arm's TrustZone and CryptoCell security technologies — allowing it to act as a primary application processor in a variety of projects, or to run as a communications processor next to a more powerful microcontroller or microprocessor.

The nRF9151 is around 20% smaller than the nRF9161 and adds support for Power Class 5 20dBm on top of Power Class 3 23dBm, as well as along with full compatibility with 3GPP Release 14 LTE-M/NB-IoT and 1.9GHz DECT NR+. For the longest of long-range communication, Nordic has pledged support for satellite communication in an updated firmware.

Nordic has also launched the nRF9151 Development Kit (DK), a development board that breaks out the SiP's features into an easily-accessible form factor — including support for using its general-purpose input/output (GPIO) headers on Arduino UNO-format pin headers. The board is ready, complete with a bundled SIM card with pre-loaded data allowance, and comes with an embedded SEGGER J-Link for programming and debugging — usable also with external targets, if desired.

"I'm excited that the nRF9151 is now entering production because we know our customers and many other IoT developers demand a highly integrated, compact, and low power LTE-M/NB-IoT and DECT NR+ solution," said Nordic's Øyvind Birkene. "Not only does the nRF9151 bring class-leading performance to cellular IoT, but Nordic is also the only global company to offer a complete cellular IoT solution. We are eager to also close gaps and bring global coverage through the upcoming NTN support."

Latest wireless transceiver cut energy costs and boost computation power

EnOcean's new TCM 600 and TCM 615 wireless transceivers provide significantly more memory and much higher computation power while reducing energy consumption.

The TCM 615 provides a simple, compact, and cost-effective way to add EnOcean radio communication functionality to OEM customer solutions. It is pin-to-pin compatible with the previous TCM 515 device and uses the same, well-established ESP3 interface protocol. Users can therefore directly upgrade existing designs from TCM 515 to TCM 615 without the need for hardware or software redesign, and thereby immediately benefit from the latest functionality.

With the TCM 600, customers can combine their own application with the latest EnOcean radio communication technology in the same module. This solution is therefore ideal for implementing in space-constrained wireless applications such as ultra-compact relays and dimmers.

TCM 600 and TCM 615 implement the open, industry-leading EnOcean radio communication standard ISO1453-3-10 and ISO14543-3-11. This standard is characterized by high reliability and very low power consumption thanks to the use of small, redundant messages making them ideal for energy harvesting and low power applications.

"This latest wireless device family further extends the leadership of EnOcean products in creating a smart, connected and sustainable world. With a significant performance boost, TCM 600 and TCM 615 enable differentiated applications based on the latest EnOcean technology," said Matthias Kassner, vice president product marketing at EnOcean GmbH.

Elevāt's Ecosystem Management Platform simplifies IoT OEM communications

Elevāt has launched its enhanced Ecosystem Management Platform rollout, marking a significant step forward in OEM communication, asset management, and operational efficiency.

The enhanced platform focuses on creating seamless communication across OEM networks, integrating a range of stakeholders, including dealers, service teams, partners, and asset owners into a unified ecosystem. Elevāt's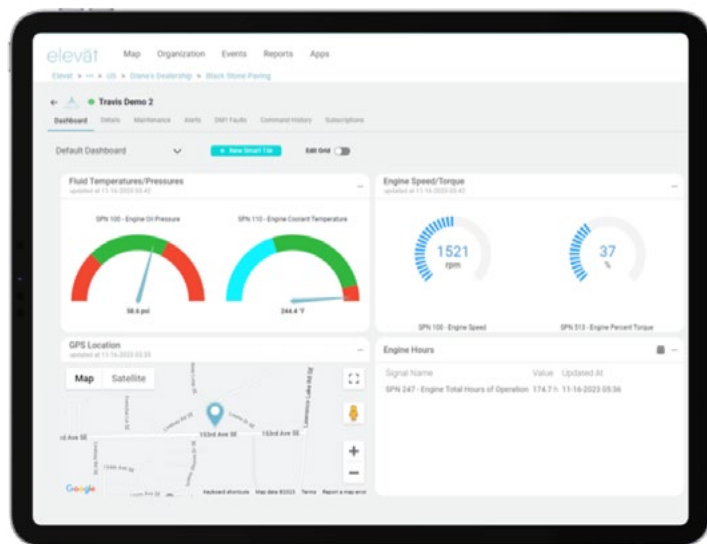 solution supports the flow of critical information, enabling stakeholders to collaborate more effectively, optimize service coordination, and enhance operational performance.

"Our industry is evolving rapidly — from connecting machines, to connecting businesses, to connecting entire ecosystems. Our enhanced platform is designed with this at its core. We understand that the ability to maintain clear communication across all levels of the OEM ecosystem is vital. We are not just connecting machines, we're empowering businesses to make faster, informed decisions while strengthening relationships across their entire network," said Adam Livesay, Co-Founder of Elevāt.

Key benefits of Elevāt's Ecosystem Management Platform include streamlined communications across all touchpoints in the OEM ecosystem, ensuring all stakeholders stay aligned and informed throughout the service lifecycle; ecosystem-wide dashboards for tracking condition-based alerts, DM1s, maintenance reminders, and service requests; a streamlined service request system with real-time tracking and updates, enabling faster and more efficient handling of service needs similar to a ticketing system; and scalability designed to support growing ecosystems, easily integrating new assets, users, and partners as business needs evolve.

The Ecosystem Management Platform is tailored for the interconnected industrial environment, enabling proactive communication and data sharing, reducing downtime, and ensuring operational excellence.

World's first AI-powered 5G indoor FWA

ZTE Corporation has launched the world's first AI-powered 5G indoor FWA. This cutting-edge solution offers a 20% increase in bandwidth efficiency and a 30% reduction in network congestion, ensuring more reliable and high-performance connections even in the most demanding environments.

Equipped with a 13dBi ultra-high-gain antenna, the ZTE G5 Ultra leverages AI-driven bandwidth optimization, AI QoS management, and AI signal tracking technology to deliver seamless, robust connectivity, positioning it as a game-changer in the market. Empowered by the new Wi-Fi 7 technology with a peak data rate of up to 19Gbps, users will benefit from enhanced network reliability, making it perfect for high-bandwidth activities such as HD streaming and remote work.

ZTE has also showcased a future-ready 5G-A outdoor FWA, ZTE G5F, designed to provide ultra-high-speed connectivity with peak data rates of up to 10Gbps. This next-generation device supports Sub6G and mmWave carrier aggregation and dual connectivity, allowing users in both urban and rural areas to enjoy a top-tier 5G experience.

From windows to base stations

JTower recently announced the deployment of a new glass antenna, created with glassmaker AGC and NTT Docomo.

The first was installed on a window in Tokyo's Shinjuku district, and, according to Shota Ochiai, a marketing manager at AGC, is "the world's first antenna that turns a window into a base station that can be attached to a building window inside and turn the outdoors into a service area without spoiling the cityscape or the exterior appearance of the building."

5G networks, lauded for their high-speed low latency capabilities, require many more base stations than older generations of mobile networks to achieve the same coverage. Accordingly, to expand 5G footprint without installing unsightly equipment, Japanese companies are now developing transparent glass antennas that allow windows to serve as base stations that can be shared by several carriers.

NTT Docomo uses transparent conductive materials as the basis for its antenna, sandwiching the conductive material along with a transparent resin, in between two sheets of glass. The WAVEANTENNA antenna can be engineered according to the thickness of the glass to reduce the attenuation and reflection of the radio signals being absorbed and emitted.

"The glass antenna uses our proprietary technology to smooth out the disruption in the direction of radio waves when they pass through a window," added Ochiai.

Compatible with frequencies in the sub-6GHz band, the WAVEANTENNA's lower frequency ranges penetrate walls and buildings better than the higher bandwidth mmWave portions of the 5G spectrum. As such, these next-generation glass antennas could prove a real boon to expanding 5G coverage, particularly within dense urban regions, especially amidst growing infrastructure sharing.

"I don't think the idea for using transparent conductive materials as an antenna existed before," said AGC's general manager Kentaro Oka. "The durability of the antenna was significantly increased by placing the conductive materials between glass."

International Advisory Body for Submarine Cable Resilience launched

The International Telecommunication Union (ITU), the United Nations Agency for Digital Technologies, and the International Cable Protection Committee (ICPC) have formed the International Advisory Body for Submarine Cable Resilience to strengthen the resilience of this vital telecommunication infrastructure.

The Advisory Body will address ways to improve cable resilience by promoting best practices for governments and industry players to ensure the timely deployment and repair of submarine cables, reduce the risks of damage, and enhance the continuity of communications over the cables.

"Submarine cables carry over 99% of international data exchanges, making their resilience a global imperative," said ITU Secretary-General Doreen Bogdan-Martin. "The Advisory Body will mobilize expertise from around the world to ensure this vital digital infrastructure remains resilient in the face of disasters, accidents, and other risks."

Damage to submarine cables is not uncommon, with an average of 150-200 faults occurring globally each year and requiring about three cable repairs per week, according to the ICPC. The primary causes of damage include accidental human activity, such as fishing and anchoring, alongside natural hazards, abrasion and equipment failure.

"The formation of this International Advisory Body with ITU marks another step toward safeguarding our global digital infrastructure," said ICPC Chair, Graham Evans. "By working together, we can promote best practices, foster international collaboration, and create a consistent approach to protect the vital submarine cable networks that underpin global connectivity."

The Advisory Body's 40 members include Ministers, Heads of Regulatory Authorities, industry executives, and senior experts on the operations of telecommunication cables. The Advisory Body is co-chaired by H.E. Minister Bosun Tijani, Minister of Communications, Innovation and Digital Economy of the Federal Republic of Nigeria, and Prof. Sandra Maximiano, Chair of the Board of Directors of the National Communications Authority of the Republic of Portugal (ANACOM).

"Submarine cables are essential to the functioning of our connected world, but they face risks that require coordinated, proactive action," said Tijani. "Therefore, we are happy to host the inaugural Submarine Cable Resilience Summit to be held in Nigeria in early 2025."

"This initiative underscores the global community's commitment to strengthening these networks and advancing international cooperation for digital resilience," said Maximiano.

Frog Cellsat wins new transport DAS deal

Frog Cellsat has won a distributed antenna system (DAS) contract relating to transport hubs for the largest city of the Indian state of Assam.

Frog Cellsat has won a deal from Amaravati Digital Networks (an affiliate of ICT company Transmedia Group) to deploy a DAS solution for the new terminal of Guwahati airport for bolstering 4G and 5G mobile coverage.

The company will deploy its OneDAS system in multiple input multiple output (MIMO) 2x2 configuration, providing 4G and 5G coverage across eight frequency bands.

Modern DAS sidesteps the problem of ensuring coverage while also serving all operators by offering a network of antennas accommodating multiple carriers that work together to provide wireless service in a specific area. OneDAS is described as a multi band, multi-technology and multi-operator system.

"As airports become more connected, our OneDAS solution ensures reliable, high-speed connectivity for passengers and staff alike," said Konark Trivedi, Founder & MD at Frog Cellsat.

Ukraine makes UAH2.8 billion from spectrum auction

Ukraine's telecoms regulator earned UAH2.8 billion during its recent spectrum auction with Vodafone, Kyivstar and Lifecell buying five lots of spectrum in the 2100, 2300, and 2600-MHz bands.

According to the National Commission for State Regulation of Electronic Communications, Radio Frequency Spectrum, and Postal Services (NCEC), Kyivstar bought two lots of spectrum in the 1940-1945/2130-2135MHz and 2355-2395MHz bands, while Vodafone Ukraine also bought two lots in the 1945-1950/2135-2140MHz and 2575-2610MHz bands. Lifecell took the 1935-1940/2125-2130MHz bands.

Under the new 15-year licences, the operators will install 1,500 new base stations within two years, including 500 in the first year, according to Ukrainian news site UNN. They are also tasked with rapid restoration of communications in de-occupied territories within six months, as well as increasing mobile coverage on national and international highways.

Kyivstar's parent company Veon said that the auction result boosts its total spectrum holding from 152MHz to 202MHz. Veon also said Kyivstar will invest UAH1.43 billion in the Ukrainian economy through the spectrum acquisition.

"We have consistently stated that the time to invest in Ukraine is now, and have committed US$1 billion in investments through 2027," said Veon Group CEO Kaan Terzioglu. "We have an unwavering commitment to building Ukraine's digital infrastructure, taking 4G connectivity across the nation, bolstering our network's energy resilience to keep Ukraine connected, and investing in the digital services that Ukraine needs."

The successful auction also signifies the Ukraine government's determination to develop the country's digital infrastructure even amid the ongoing war with Russia, which invaded Ukraine in February 2022. The Ukrainian government has set a target to increase 4G coverage from 65% to 91% over the next three years, despite repeated attacks on critical infrastructure.

"Developing an industry during wartime is a challenge, but not a reason to put life on hold," said Kyivstar CEO Oleksandr Komarov. "The auction for obtaining licenses for the use of the radio frequency spectrum is an important step in the development of Ukraine's electronic communications industry and evidence that the war does not stop investments in state assets, and their effective management can bring significant funds to the budget."

CelcomDigi renews tower deals

CelcomDigi has renewed its partnerships with Edotco Group, Edgepoint Infrastructure, D'Harmoni Telco Infra and PDC Telecommunication Services as part of its ongoing project to integrate and modernise its network.

CelcomDigi has reshaped key terms in the renewed agreements to future-proof its infrastructure for the digital era, as well as enable fast rollout, wide coverage, and innovative growth opportunities. CelcomDigi has also established a new collaborative framework with its towerco partners to explore next-generation digital connectivity solutions such as street furniture and in-building solutions that could help the network support exponential data growth.

CelcomDigi's RM4 billion network integration and modernisation project has been underway since June 2023. The project is now close to 70% complete, with over 10,500 sites modernised by the end of October, covering over 65% of its customer base. The company aims to complete 75% of network upgrades by end of this year, which would be ahead of its target. CelcomDigi aims to establish 18,000 5G-ready sites across Malaysia by 2026.

CelcomDigi CEO Idham Nawawi said that the telco's partnerships with towercos have been pivotal in driving the project: "efforts to strengthen long-term partnerships with tower companies are key to developing a robust network infrastructure. With trusted partners who possess proven capabilities and extensive reach, we are ensuring the rapid rollout of sites to complete the largest network integration and modernisation exercise in the country, delivering excellent service to customers across more areas nationwide."

Viasat demonstrates D2D in Saudi Arabia

Viasat has successfully demonstrated direct-to-device (D2D) satellite connectivity in Saudi Arabia for the first time, in conjunction with its ecosystem partners.

Viasat says it sent satellite-enabled two-way messages and SoS messages for attendees at the 'Connecting the World from the Skies' event in Riyadh.

The tests used a commercial Android smartphone enabled for non-terrestrial network (NTN) connectivity with the Bullitt over-the-top messaging application. Bullitt Satellite Messenger service is a direct-to-device NTN messaging service.

The messages were sent over Viasat's L-band spacecraft, which orbits above the Indian Ocean, and were enabled by 3GPP standards-based NTN service infrastructure installed in Viasat's gateways by NTN service provider Skylo.

Viasat's approach of using already-licensed and dedicated satellite spectrum will enable it to work with mobile network operators to provide these services in the future without sacrificing or interfering with any terrestrial spectrum.

ZTE and TrueBusiness team up for smart manufacturing in Thailand

ZTE is collaborating with True Corp's enterprise arm TrueBusiness and Charoen Pokphand Foods (CPF) to develop a private 5G network solution designed to enable smart manufacturing in Thailand.

The three companies have developed a 5G-in-a-box solution that has been deployed at CPF's Center of Engineering Excellence (CEE), the food company's sandbox innovation centre where partners and enterprises can collaborate on innovations or use cases for industrial technologies such as robotics and energy management.

ZTE said that the 5G-in-a-box solution enables intelligent manufacturing by providing the security, latency, coverage, and reliability beyond what Wi-Fi can deliver, with downstream data rates of 882Mbps and an average latency of 10ms. The solution includes ZTE's iMacro equipment, which is suitable for a food factory environment because it can be installed outside glass walls, which helps avoid potential contamination issues related to water

cleaning and food safety.

The solution also utilises ZTE's UniEngine solution – designed for industrial 5G use cases – that integrates the functionalities of 5G core, 5G RAN, and simplified O&M, and provides deterministic guarantees for SLAs.

True Corp is providing dedicated spectrum for the CEE network, which also employs network slicing technology to ensure quality of service and enterprise security. ZTE says the CEE network has demonstrated its coverage and penetration capability in the factory area, and shown significant improvements in data reliability. CEE will also use the private 5G network to introduce more use cases aimed at improving production efficiency such as autonomous guided vehicles (AGVs), robot, vision inspection and AI.

Spies remain within America's telco networks

China-linked spies are still lurking inside US telecommunications networks roughly six months after American officials started investigating the intrusions, according to those in the know.

This is the first time US officials have confirmed reports that Salt Typhoon hackers still have access to critical infrastructure — and they're proving difficult to kick out. Officials added that they don't yet know the full scope of the intrusions.

The Cybersecurity and Infrastructure Security Agency and FBI have released guidance for the communications sector to harden their networks against state-sponsored hackers, including basic steps like maintaining logs of activity on the network, keeping an inventory of all devices in the telecom's environment and changing any default equipment passwords.

The hack has given Salt Typhoon unprecedented access to records from US telecommunications networks about who Americans are communicating with.

None of Salt Typhoon's methods for hacking these networks appear to be new or highly sophisticated. Many of the ways they're getting in align with existing weaknesses with the infrastructure that telecom providers rely on, said the official added. Politico reports that up to 80 telcos and internet providers have likely been affected by the sweeping hack.

The FBI and CISA officials say they don't yet have a timeline for when US telcos will fully eradicate Salt Typhoon from their networks.

PLDT promises 'uninterruptible internet'

PLDT has reportedly launched an 'uninterruptible fibre internet connection' service that uses fixed wireless access (FWA) LTE as an automatic backup connection in case of a fibre outage.

The "Fiber Always On" service from PLDT Home uses a hybrid CPE modem that supports both fibre access and LTE. The LTE connection is provided by PLDT's wireless arm Smart Communications.

Roy Victor Añonuevo, PLDT VP and head of home broadband product management, said that the modem will automatically switch to LTE if it detects a fault in the fibre connection. After that, customers will get unlimited LTE until the fibre connection is fixed. The modem also notifies automatically PLDT Home's support centre when it makes the switch to LTE, after which a ticket number is automatically generated and a repair team dispatched within 24 to 36 hours, the report said.

While the always-on hybrid modem is available as an add-on for existing PLDT Home customers, service availability depends on the quality of Smart's LTE signal in the customer's service area. PLDT Home technicians will test the LTE signal before installing the hybrid modem, the report added. PLDT Home customers can also use a form on the service provider's website to check if the always-on option is available in their location. Even with a good signal, PLDT Home subscribers are likely to experience a noticeable drop in connection quality once the modem switches from fibre to LTE.

Thoresen Shipping selects Marlink for digital transformation

Marlink is supporting Thoresen Shipping's digital transformation with the migration of its fleet to the Sealink NextGen solution.

Marlink will deploy a complete hybrid network comprising guaranteed throughput by blending VSAT with Starlink LEO and additional backup services. The integration includes software-defined application routing (SD-WAN) using Marlink's XChange network management tool as well as Endpoint Detection cyber protection.

The SD-WAN functionality in Marlink's Xchange platform enables cloud applications and remote operations at sea by ensuring guaranteed connectivity levels to run business and crew applications on a hybrid network solution. XChange enables the seamless fusion of the different networks – whether GEO, LEO or MSS backup – to leverage the benefits of a single secure hybrid solution with the highest uptime available and guaranteed global coverage.

Combining LEO and VSAT in a seamless, end-to-end managed Sealink NextGen hybrid network will enable Thoresen Shipping to optimise its operations and improve customer support through enhanced application performance and network security. The solution will enable enhanced crew communications in addition to improved operational support including collaborative workflow and remote access to shipboard systems.

SpaceSail joins Starlink in Brazil with LEO constellation

Close on the heels of Starlink, SpaceSail, a Chinese low Earth orbit (LEO) satellite company, has signed an agreement to enter the Brazilian market.

SpaceSail signed a memorandum with Telebras to provide satellite communications and broadband internet services to Brazil. The companies will reportedly study demand in areas not served by fibre optic infrastructure. The service is expected to go live in 2026.

SpaceSail is developing high-speed internet services through low Earth orbit satellites described as 'the Thousand Sails Constellation, a giant low-orbit satellite constellation adopting a full-frequency-band, multilayer and multi-orbit design.'

Mexico proceeds to abolish telecoms watchdog

Mexico has proceeded with plans to abolish several regulatory bodies, including telecoms watchdog the Instituto Federal de Telecomunicaciones (IFT).
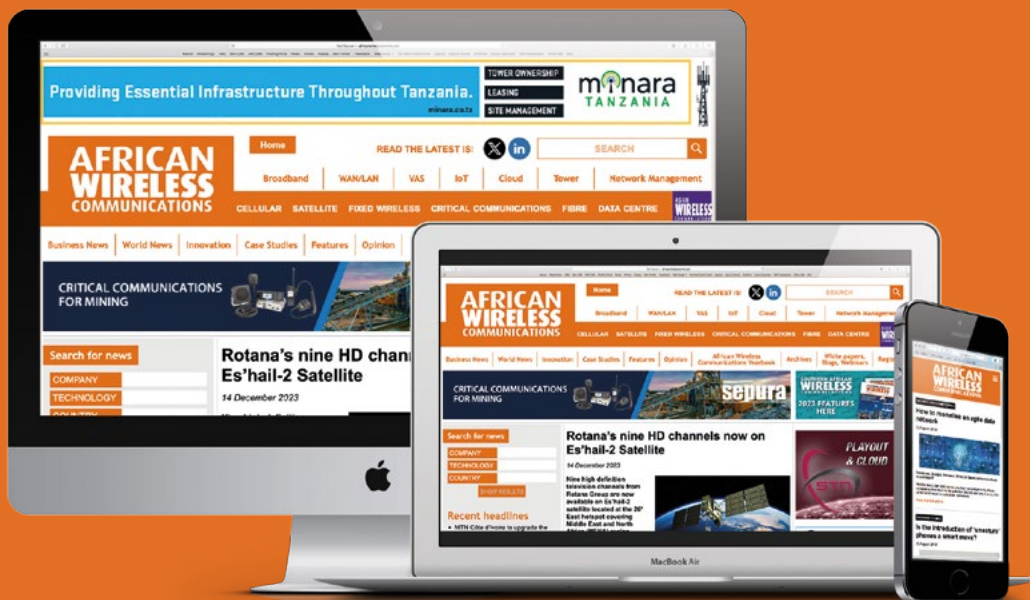
The country's ruling majority approved the general text of the constitutional amendment to abolish seven autonomous watchdogs. They include antitrust watchdog Cofece, telecoms regulator IFT, energy regulator CRE, hydrocarbon regulator CNH and public information and data protection office INAI.

These reforms to bodies that help to ensure government transparency could, Reuters has reported, worsen tension with the US and hit credit ratings. Mexico's lower house of Congress has duly proposed adjustments to these reforms to ensure compliance with the 2020 United States-Mexico-Canada Agreement (USMCA).

The argument for change has been that streamlined governance could save some US$5 billion annually and reduce corruption – however, it could strip funding from important projects, reduce transparency and 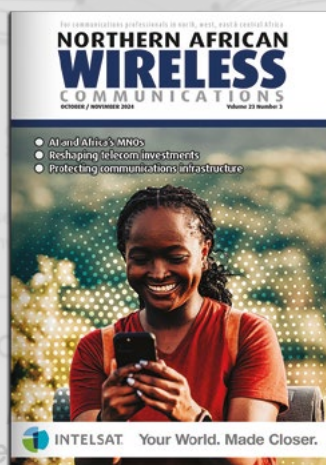oversight and concentrate power with the executive.