For communications professionals in north, west, east & central Africa

NORTHERN AFRICAN WIRELESS COMMUNICATIONS

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G6 highlights device affordability gap

The Africa Group of Six (G6), a coalition of leading African mobile network operators — Airtel, Axian Telecom, Ethio Telecom, MTN, Orange, and Vodacom — have reported that despite significant strides in expanding mobile coverage across sub-Saharan Africa, 60% of individuals living in covered areas are unable to access mobile services due to the unaffordability of handsets. This accounts for 710 million people who live within network coverage but do not subscribe to mobile services, as entry-level smartphones remain prohibitively expensive.

The G6 operators reported progress in advocating for fiscal policy reforms, successfully persuading the United Nations Economic Commission for Africa (UNECA) to expand its initiative on reducing taxes on low-end smartphones to encompass 52 African nations. The coalition has also engaged with the World Bank Group, the International Telecommunication Union (ITU), and the GSMA Handset Affordability Coalition to enhance access to affordable, internet-enabled devices.

In addition, the G6 has developed regulatory principles aimed at ensuring fair contributions from large traffic originators and non-terrestrial networks to cultivate a balanced digital ecosystem that promotes economic resilience and inclusion.

Looking ahead, the G6 plans to advocate for policies aimed at reducing the cost of mobile devices and services. Key proposals include the elimination of sector-specific taxes on low-end smartphones and mobile money usage. The coalition intends to strengthen collaborations with finance ministries, the World Bank, and the IMF to underscore the mobile industry's vital role in driving economic growth. They will also promote regulatory frameworks that attract equitable investment and partnerships to narrow the coverage gap, encouraging infrastructure sharing among digital ecosystem participants.

MTN South Sudan targets e-waste management

MTN South Sudan has partnered with the Waste Electrical and Electronic Equipment Centre (WEEE Centre) and the National Communications Authority aimed at effectively managing electronic waste (e-waste) in the country.

This initiative is part of MTN's commitment to environmental sustainability and appropriate e-waste management, contributing to a cleaner and healthier future for South Sudan as outlined in its Environmental, Social, and Governance (ESG) Strategy.

The Global e-Waste Monitor 2024 reports a critical situation across Africa, where only nine out of 54 countries have adopted the extended producer responsibility principle — an approach designed to encourage the development of sustainable and recyclable products and processes. In this context, MTN South Sudan's initiative stands out as an important step towards fostering responsible e-waste management in the region. To date, the WEEE Centre has received a wide array of e-waste materials from MTN, including computers, laptops, printers, and networking equipment.

"Our approach to electronic waste management aligns with our broader ESG strategy, ensuring that sustainability remains at the core of our business and contributes to the nation's long-term growth," said Moses Mayor, MTN South Sudan's Chief of Legal, Regulatory, and Corporate Services. "We recognize our responsibility in protecting and managing the environment."

"We are pleased with the substantial number of e-waste items received from MTN. This partnership not only enhances our capacity to manage e-waste but also promotes awareness and education on the importance of proper electronic waste disposal among the public," said Tom Musili, head of the WEEE Centre.

Uganda approves landmark single SIM card policy

Uganda has made a significant advancement in telecommunications by adopting a historic proposal for a single SIM card policy designed to simplify communication across all mobile networks in the country.

The proposal received unanimous approval during a plenary session led by Deputy Parliamentary Speaker Thomas Tayebwa.

Championing the initiative in parliament, Mityana MP Joyce Bagala emphasized that this policy would alleviate the burden of managing multiple SIM cards for mobile users. Soon, consumers will be able to call, text, and conduct transactions seamlessly across various mobile networks.

"This development will greatly enhance network accessibility and lower the cost of connectivity. The quality of services is set to improve as all telecom companies will be incentivized to provide the best offerings to retain customers," said Bagala. She added that the policy is expected to bring significant convenience to users.

In response to the approval, Parliament has called on the Uganda Communications Commission to implement the policy promptly. Legislators believe this consumer protection measure will allow subscribers to retain their phone numbers while switching networks or relocating, further facilitating communication.

Members of Parliament widely supported the decision, asserting that the single SIM policy will increase network accessibility,

reduce communication costs, and enhance service quality through heightened competition among telecom providers.

"If we can have something that saves me from carrying two or three phones, it is truly essential. We often travel abroad for duties, and it becomes cumbersome when asked why I have three phones with me," said Deputy Speaker Tayebwa.

Despite the promising potential of the single SIM card policy, its implementation faces certain challenges. Godfrey Kabbyanga Baluku, State Minister for ICT, indicated that the transition will require extensive infrastructure upgrades from both the government and telecom operators to facilitate the smooth rollout of the new system.

As Uganda moves forward with this policy, the focus remains on enhancing the communications landscape, prioritizing consumer convenience, and fostering competitive practices within the telecommunications sector.

Safaricom completes phase one of Limuru facility

Safaricom has successfully completed phase one of its data centre located in Redhill, Limuru.

The facility, which is part of a larger campus, will ultimately consist of three buildings, with the first completed building marking a significant milestone in the project.

Upon the completion of the second phase, which is expected in January 2026, Safaricom plans to offer 2.8 MW of IT capacity. However, the IT capacity for the full completed facility has not yet been disclosed. The data centre is designed to meet Tier III standards, ensuring high levels of reliability and efficiency.

In an effort to promote sustainability, the facility will utilize free cooling technology and will supplement its power requirements with solar energy. Additionally, the project includes an innovation lab intended to facilitate the testing of new ideas, although specific details regarding its operations have not been elaborated by the company.

"When we call it world-class, we've already been tested in terms of best practices and industry standards, and that means we play in the same league with Google and Microsoft," said Esther Karuga, senior manager and overall lead of the Limuru facility.

The Limuru data centre is strategically located just outside Nairobi, which is already home to various data centre operators including Digital Realty, Paix, Africa Data Centres, and MTN. In addition to the new Limuru facility, Safaricom operates three other data centres in and around Nairobi, as well as facilities in Kisumu City, Thika, and Arena. Furthermore, the company has expanded its reach with two data centres in Addis Ababa, Ethiopia.

PEACE Subsea cable break could lead to extended connectivity issues

The recent severing of the PEACE subsea cable in the Red Sea poses significant long-term challenges for global connectivity, with repairs potentially taking months to complete.

The breakage, located approximately 1,450km from Zafarnaat, Egypt, has not disclosed a specific cause, but the region has faced ongoing threats that may have contributed to the incident.

Reports indicate that the Red Sea area has become increasingly perilous due to Houthi attacks on vessels navigating Yemeni waters since November 2023. There are concerns that abandoned ships drifting in the area may have inadvertently damaged the subsea cables, complicating the situation further.

The repair endeavour is expected to stretch over several months, not only due to the complexities involved but also because the subsea connectivity industry is grappling with a shortage of cable-laying ships. Despite the commissioning of several new vessels in the past 18 months, many projects are experiencing delays, and some have even been re-routed.

The challenge lies in the ratio of operational subsea cables, which currently exceeds 400, with numerous new cables set to enter the market in the coming years. However, the global fleet of vessels capable of laying and maintaining these cables is limited to approximately 60 ships, many of which are older, resulting in a significant bottleneck in repair and installation efforts.

The PEACE cable, which spans 25,000km and connects 14 points across 13 countries — including France, Egypt, Cyprus, Kenya, the Maldives, Malta, Pakistan, Saudi Arabia, the Seychelles, Singapore, Somalia, Tunisia, and the UAE — plays a crucial role in global communications. Notably, UAE-based telecom operator du recently announced a partnership to extend the PEACE subsea cable system into the UAE and Gulf region, highlighting its importance to the region's connectivity infrastructure.

As the situation with the PEACE subsea cable unfolds, stakeholders across the telecommunications industry and broader economy will be closely monitoring the repair timelines and the implications for connectivity in the affected regions.

Chadian authorities seek collaboration with Inwi to launch national data centre

In a significant step toward enhancing its national digital infrastructure, Chadian authorities have expressed their intention to partner with Morocco's telco Inwi to operationalize the national data centre soon.

This collaboration was a central topic during discussions following a working visit by a representative from Inwi to the Agency for the Development of Information and Communication Technologies (ADETIC). The discussions focused on identifying opportunities for collaboration in the field of Information and Communications Technology (ICT). Chad aims to leverage Inwi's technical expertise, along with the financial and human resources necessary to optimize the operation of its data centre and develop additional ICT infrastructure.

"Inwi has recognized expertise in the development and management of data centres certified according to international standards. The operator boasts several data centres in Morocco, positioning Inwi as a leader in cloud services and digital transformation," said ADETIC in a statement.

The Chadian data centre is a key component of the Electronic Communications Infrastructure Modernization Project (PMICE), which was launched in July 2020. The facility, encompassing an area of 500 m² and spanning four levels, is designed to meet the country's growing digital data storage, management, and processing needs. Boukar Michel, Minister of Communications, Digital Economy, and Digitalization, indicated in January that the data centre is currently in advanced stages of construction.

Once operational, the data centre is expected to significantly bolster Chad's national digital capabilities. According to the 2024 United Nations Department of Economic and Social Affairs (DESA) report, Chad scored 0.1195 out of 1 on the Telecom Infrastructure Index, part of the e-Government Development Index (EGDI). For the latter, Chad scored 0.1785 out of 1, ranking 187th out of 193 globally and 50th in Africa. These scores are below regional averages, highlighting the urgent need for infrastructure improvements.

Nigeria's Universal Service Provision Fund plans 1,000 new base stations by 2030

The Universal Service Provision Fund (USPF) of Nigeria has announced an ambitious initiative to deploy 1,000 new cellular base stations in rural areas across the country by 2030. This initiative seeks to enhance telecommunications access in underserved regions, contributing to global efforts aimed at improving rural connectivity.

Yomi Arowosafe, Secretary of the USPF, acknowledged the collaborative efforts of the International Telecommunication Union (ITU) and the UK Foreign, Commonwealth, and Development Office (FCDO) in supporting this important initiative. He emphasized the significance of public-private partnerships in achieving universal broadband access — an objective that the World Bank estimates will require an investment of $400 billion globally by 2030.

"Achieving universal broadband access will require over $400 billion by 2030, and neither the public nor the private sector can do this alone. Governments need to implement bold reforms, while the private sector must focus on reducing costs, mitigating risks, and fostering efficiency and innovation," said the World Bank in a statement.

The 1,000 new base stations initiative complements the Federal Government's recent commitment to establish an additional 7,000 new base stations throughout Nigeria.

In addition, the USPF Secretary highlighted plans to collaborate with device manufacturers to provide affordable mobile devices, facilitating further reductions in the digital divide. Arowosafe noted that Nigeria has already achieved a 57.97% reduction in its connectivity gap since 2013, positively impacting approximately 13.8 million individuals.

Giga Initiative expands collaboration to connect African schools by 2030

Giga, an ambitious initiative aimed at providing internet connectivity to schools worldwide by 2030, is intensifying its efforts in Africa through new partnerships.

Giga recently announced the signing of collaboration agreements with Smart Africa and the United Nations Economic Commission for Africa (ECA). These partnerships are designed to support Giga's vision of connecting all African schools to the internet by the end of this decade.

"The potential impact on children of Giga's collaboration with Smart Africa and ECA is exciting and extremely promising. Together, we can equip a generation of learners with the digital skills, tools, and expertise they need to engage in a technologically advanced world," said Thomas Davin, Director of UNICEF's Office of Innovation.

The three-year agreements aim to enhance African governments' access to a diverse range of sustainable, affordable, high-speed, and high-quality internet options. Additionally, these initiatives will offer policy and regulatory guidance to facilitate smoother implementation of internet projects.

In tandem with signing agreements with Smart Africa and ECA, Giga has already established partnerships with Jumia, an e-commerce giant, and Liquid Intelligent Technologies, a prominent tech firm. The

initiative is actively collaborating with the governments of Rwanda, Kenya, Sierra Leone, Niger, and Zimbabwe to accelerate internet connectivity in schools.

A market study published by Giga in April 2024 underscores the importance of collaboration among development partners, governments, and industry suppliers in achieving the goal of connecting every school in Africa by 2030. The study highlights the urgent need to accelerate efforts to expand connectivity; incentivize the industry to deliver internet services at scale; mobilize political commitment to invest in connectivity infrastructure; and define clear actions to align supply with demand.

To realize this ambitious goal, an estimated budget of $3 billion will be required. Current statistics from the United Nations Educational, Scientific and Cultural Organization (UNESCO) indicate that as of May 2024, only 40% of primary schools and 50% of lower secondary schools in Africa have internet access. This stark reality emphasizes the critical need for initiatives like Giga to bridge the digital divide in education.

ACE Gabon to land AFR-IX Telecom's Medusa subsea cable in Port-Gentil

ACE Gabon, a key player in the ACE subsea cable consortium, has announced plans to land the Medusa subsea cable in Port-Gentil, Gabon. This initiative follows the signing of a construction and maintenance agreement with Medusa Africa, solidifying ACE Gabon's role as an essential partner in this significant telecommunications project.

The Medusa submarine cable, powered by AFR-IX Telecom, is designed to enhance connectivity across a wide geographic area. Initially, the cable was planned with 17 landing points, including locations in Algeria, Cyprus, Egypt, France, Greece, Italy, Libya, Morocco, Portugal, Spain, and Tunisia. The recent expansion adds a branch to West Africa, with funding secured from the European Commission to develop the Medusa Africa subsea cable.

In addition to its Gabonese landing, the Medusa project includes plans for a branching unit that will extend to the Democratic Republic of Congo.

Several other telecommunications partners have been involved in the Medusa project. Orange Tunisie will act as the landing partner and owner of the Tunisian branch, with the cable landing at Tunisie Orange's facility in Bizerte. Telecom Egypt will facilitate connections in Port Said, Egypt, linking the cable to existing Red Sea landing stations. Libya's state-owned LUIC will manage the cable's landings in Tripoli and Benghazi.

Currently, Port-Gentil is connected only through the Libreville-Port Gentil domestic subsea cable. Other major subsea cables landing in Gabon include ACE, 2Africa, Maroc Telecom West Africa, and SAT-3, all landing in Libreville.

This landing of the Medusa cable in Gabon represents a significant step towards improving digital infrastructure in West Africa, facilitating better connectivity and laying the groundwork for future technological advancements in the region.

Central Africa moves towards free roaming

The populations of Central Africa could soon gain access to free roaming, allowing them to communicate across borders without incurring additional charges. Stakeholders involved in this initiative have been given a three-month deadline to finalize the implementation of the community roaming project.

This pivotal decision emerged from a recent meeting of telecommunications ministers from the Economic and Monetary Community of Central African States (CEMAC). During the gathering, participants discussed the various barriers hindering the rollout of this initiative, which seeks to eliminate disparities in roaming costs that contribute to high communication expenses and stall the growth of the telecommunications sector.

In November 2021, CEMAC member countries signed bilateral memoranda of understanding to facilitate the effective introduction of free roaming. However, the project has encountered considerable delays. A report from the Assembly of Telecommunications Regulators of Central Africa (ARTAC) in April 2024 indicated that only two out of the planned 213 connections had been established. These connections involve MTN Cameroon and MTN Congo, as well as Airtel Gabon and Orange Cameroon.

Although the specific obstacles to the implementation of free roaming have not been detailed, the objectives set by ARTAC for a 2024 seminar dedicated to expediting the process provide some insights. Issues identified include delays in finalizing minutes and tariff agreements among regulators, slow progress in signing interconnection and roaming contracts, potential technical and legal challenges facing the involved parties, the complexity of separating roaming from traditional international traffic on direct interconnection links and determining the appropriate technology to adopt for these connections.

Nigeria shoots for the stars with 90,000km fibre deployment

The Nigerian Government has announced that its plans to deploy 90 000km of fibre optic cable will begin in the final quarter of 2025

This follows a $700 million funding injection from development partners, including the World Bank, African Development Bank (AfDB), and Islamic Development Bank.

The project, which will expand the country's fibre backbone from 35,000km to 125,000km, aims to increase internet penetration to over 70% of the population and connect millions of Nigerians currently excluded from the digital space.

"Upon completion, Nigeria's fibre optic backbone will become the third longest in Africa, after Egypt and South Africa. This expansion will optimise the use of Nigeria's eight submarine cables, increasing data capacity utilisation from the current 10%, and driving down the cost of internet access by over 60%," said Minister of Communications, Innovation, and Digital Economy, Bosun Tijani. "This increased connectivity will help plug the current non-consumption gap by connecting over 200 000 educational, healthcare, and social institutions across Nigeria. It will ensure that a larger section of our society can be included in the benefits of internet connectivity."

In addition to expanding coverage to over 70% of the population, it could also reduce the cost of internet access by 60% and connect at least 50% of the 33 million Nigerians currently excluded from the internet.

Hotspot Network Limited plans for 312 solar-powered sites

Hotspot Network Limited is preparing to roll out 312 solar-powered telecom sites nationwide, aiming to enhance its network amidst ongoing challenges related to power supply.

The announcement follows the signing of a Memorandum of Understanding (MoU) with a consortium led by Clear Blue. This consortium also includes Empower New Energy, a specialist in financing clean energy projects, and Netis, known for its expertise in telecom infrastructure management.

By harnessing solar power, Hotspot aims to improve telecom service availability in rural regions where conventional electricity access is scarce, while also lowering energy costs typically associated with diesel fuel.

Legacy networks burden network operators

New research from TXO highlights the significant financial and operational strain that the high costs of maintaining legacy networks — such as copper, 2G, and 3G — exert on service providers. Despite the challenges, many operators expect to keep these ageing infrastructures operational for the foreseeable future.

The study found that 79% of operators anticipate their copper networks will remain functional at least until 2028, with 28% of respondents predicting service extension until 2030 or beyond. Additionally, 43% of service providers believe 2G networks will not be fully phased out until 2030, while 19% forecast that decommissioning efforts will extend even further.

A staggering 81% of survey participants stated that these legacy networks impede their ability to roll out new services, thus limiting their competitiveness against more agile greenfield operators.

"Operators are caught in a challenging cycle where legacy networks are becoming increasingly costly to maintain, yet full decommissioning is still years away," said John Teasdale, Group Chief Network Officer at TXO. "The continued reliance on copper and legacy mobile networks poses a significant obstacle to new network innovations in 5G and fibre, impacting both competitiveness and sustainability."

The burden of aging infrastructure is not only financial but operational as well. An alarming 98% of network decision-makers reported that maintaining outdated networks has raised their overall operational costs. Moreover, the research indicated that major outages connected to legacy networks cost businesses an average of £1,073,684 per year due to downtime.

"Outages on legacy infrastructure are becoming more frequent and disruptive than ever," said Teasdale. "Older networks were not designed to meet today's demands, making them susceptible to failure. For many large service providers, maintenance costs have surged by 30-40% over the past year alone.

Despite the mounting challenges associated with legacy networks, telecommunications companies remain hesitant to undertake large-scale decommissioning efforts. Three-quarters of those surveyed indicated that they have postponed phasing out older networks, with 53% attributing delays to labour shortages.

On a positive note, many operators are adopting circular economy initiatives as a potential solution. The study revealed that 85% of respondents plan to resell copper infrastructure as part of a circular economy strategy, while 80% have similar plans for 2G and 3G equipment. Additionally, earlier TXO research showed that 80% of operators are recycling obsolete equipment, and 63% are purchasing refurbished components to support ongoing operations.

"Decommissioning legacy networks is a complex challenge for telcos, often constrained by labour shortages and operational risks. However, with the right expertise and infrastructure, operators can recapture value from retired equipment while advancing their sustainability goals. By reselling, recycling, and reusing network assets, the industry is making significant strides toward establishing a more circular economy — one that minimizes waste, reduces costs, and fosters a greener, more resilient technology sector," said Simon Wort, CEO at TXO.

The Rise of Network APIs in 2025

The telecommunications industry is undergoing a significant transformation as network operators develop Network-as-a-Service (NaaS) offerings. By exposing their wired and wireless networks as programmable platforms, operators are enabling public cloud and private enterprise applications to leverage network intelligence, scale, and speed in unprecedented ways. A key driver of this transformation is the emergence of standardized network APIs, which offer developers and system integrators (SIs) new opportunities to enhance application performance and security.

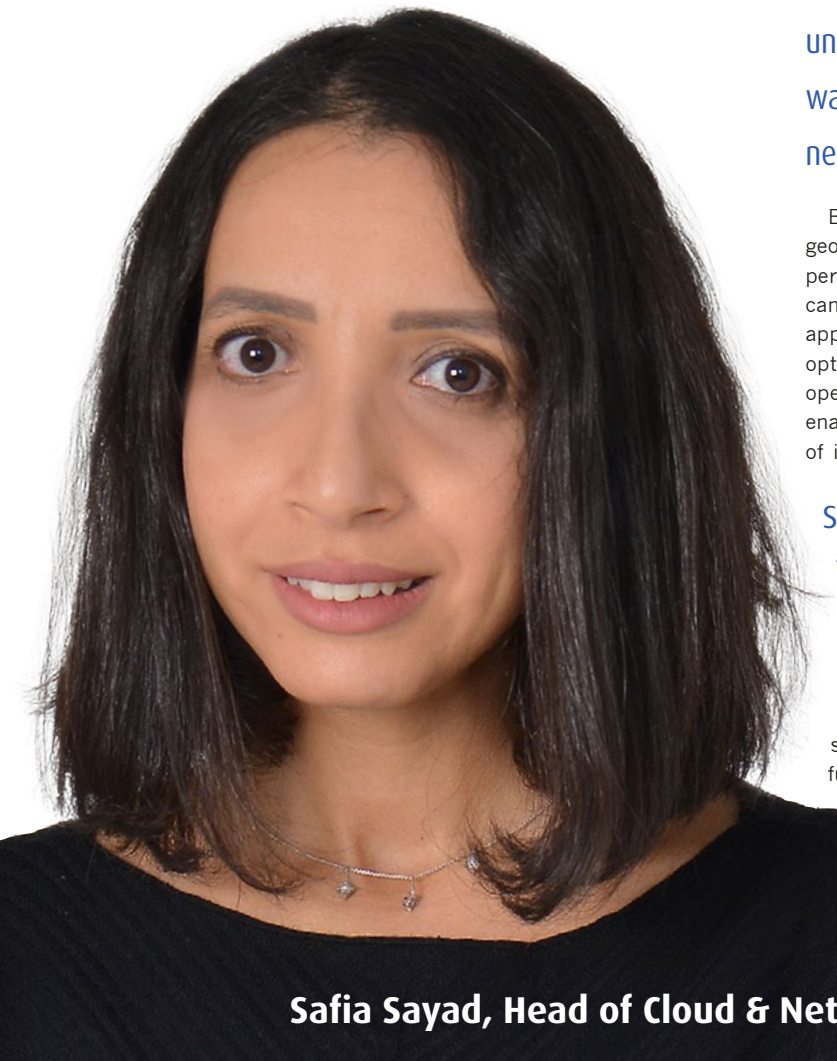
Network APIs provide a programmable interface that allows applications to either retrieve information from the network or modify its behaviour to optimize performance. By monetizing these capabilities, operators can generate new revenue streams and justify continued investment in advanced network technologies.

Performance-Oriented APIs for Industry 4.0

One immediate and high-value application of network APIs is in financial services, particularly for anti-fraud measures. APIs such as location verification enable fintech applications to cross-check a user's device location against transaction attempts. For example, if a user's phone is detected in New York while a transaction is initiated in Tokyo, the API can trigger an alert or request additional verification, significantly enhancing security.

Three key APIs—"number verify," "SIM swap," and "KYC – Match and Fill"—help financial service providers ensure the legitimacy of mobile-based transactions. Analyst firm STL Partners estimates that the market for identity APIs will be worth $4.6 billion in 2024, growing to $14.6 billion by 2030.

Beyond financial services, performance-focused network specialization APIs are gaining traction in industries requiring ultra-low latency and high reliability, such as healthcare, autonomous vehicles, and advanced manufacturing. The Quality on Demand (QoD) API, for example, allows applications to dynamically request network resources to ensure seamless operation, even in congested environments.



> "By adopting a holistic approach, the industry can unlock the full potential of network APIs and pave the way for a new era of intelligent, application-aware networking."

By combining QoD with geofencing and network performance APIs, developers can create sophisticated applications—such as ensuring optimal connectivity for robotaxis operating in designated areas or enabling real-time remote control of industrial automation systems.

Standardization and Adoption of Network APIs

A major enabler of API adoption is the shift towards software-based, cloud-native 5G networks, which facilitate systematic exposure of network functions. Recognizing this opportunity, industry standards bodies such as GSMA, TM Forum, and CAMARA are working to standardize network APIs. The goal is to allow developers to create applications that function seamlessly across different network environments without needing to adapt to each operator's unique infrastructure.

Standardization is crucial because developers need APIs that work in a generic and repeatable way to make their use cases economically viable. With increasing demand for network specialization in consumer and enterprise applications—such as virtual reality (VR), augmented reality (AR), and Industry 4.0—standardized APIs will play a crucial role in unlocking new market opportunities.

The network API market is expanding rapidly, driven by both immediate and long-term demand. In the short term, financial services applications are leading the way, with a strong focus on fraud prevention. In the longer term, more complex NaaS services will emerge, particularly in large-scale B2B applications such as logistics, autonomous vehicles, and industrial IoT.

The Evolution of the API Market in North Africa

Over the next five years, the API market in North Africa is expected to grow significantly as digital transformation accelerates across key industries. Governments and enterprises are investing in telecom infrastructure, with 5G deployment and fiber optic expansion laying the foundation for API-driven applications.

Safia Sayad, Head of Cloud & Network Services Sales, North & West Africa

- **Financial Services Expansion:** The adoption of identity and anti-fraud APIs will increase as more North African fintech companies integrate digital payment solutions, requiring secure authentication and transaction verification. This trend is particularly relevant given the region's unbanked population (reaching 57% in some countries) and the rise of mobile money solutions that have seen transaction volumes grow 30-40% annually since 2020.
- **Smart Cities and Infrastructure:** Governments in countries such as Egypt, Morocco, and Algeria are developing smart city initiatives, where APIs will play a critical role in managing urban infrastructure, traffic systems, and public safety solutions. Egypt's New Administrative Capital and Morocco's Casablanca Finance City are prime examples where network APIs can enable critical real-time data exchange between public infrastructure systems.
- **Industrial Growth and IoT:** With increasing investments in Industry 4.0, North African manufacturers will leverage network APIs for real-time monitoring, automation, and logistics optimization, particularly in sectors such as automotive, textiles, and energy.
- **Cross-Border Connectivity:** Given North Africa's strategic location as a trade hub, logistics companies will increasingly rely on network APIs for tracking goods, optimizing routes, and ensuring seamless operations across borders.
- **Resource Management Optimization:** North Africa's ongoing water scarcity challenges (with per capita availability declining by 60% since 1960) create opportunities for API marketplace to support smart agriculture and utility management through specialized network slicing capabilities.

As telecom operators and technology firms collaborate to standardize and promote network APIs, North Africa is poised to become a leading adopter of API-driven innovations, unlocking new business opportunities across various sectors.

Nokia's Role in Advancing Network APIs

Nokia has been at the forefront of developing network APIs and pioneering the concept of Network as Code. Through its API-driven approach, Nokia aims to make networks more accessible to developers and enterprises by enabling programmable network capabilities.

- **Nokia's Network as Code Platform:** This initiative focuses on simplifying access to advanced 5G capabilities, allowing developers to integrate real-time network functions into their applications with minimal complexity.
- **API Standardization and Open Ecosystems:** Nokia actively contributes to industry standardization efforts with organizations like GSMA and CAMARA, ensuring that APIs are interoperable across different telecom environments.
- **Enterprise-Focused Solutions:** Nokia is working with industries such as manufacturing, logistics, and healthcare to deploy customized network API solutions that enhance automation, security, and operational efficiency.

By integrating Network as Code with its advanced 5G solutions, Nokia is helping drive the adoption of NaaS and network APIs, empowering developers and businesses to create next-generation applications that leverage the full potential of modern networks.

Overcoming Challenges: A Holistic Approach

Despite advancements in 5G and cloud-native networking, many legacy technologies still exist within telecom infrastructure. This presents challenges both for network operators and developers. While operators must ensure their APIs integrate seamlessly with existing systems, developers need guidance on implementing telco-specific APIs effectively.

API aggregators and developer education initiatives are helping bridge this gap, making it easier for enterprises and software developers to incorporate network APIs into their applications. However, the success of this ecosystem requires collaboration between telecom operators, technology vendors, and developers.

As 2025 unfolds, the telecom industry will continue evolving towards a distributed platform model, with NaaS and API-driven services at the forefront. The shift from monolithic network services to modular, programmable functions will create new possibilities for application developers, driving innovation across industries.

To realize this vision, a coordinated effort among all ecosystem players—network operators, standards bodies, developers, and enterprises—is essential. By adopting a holistic approach, the industry can unlock the full potential of network APIs and pave the way for a new era of intelligent, application-aware networking. ■

Rwanda launches land dashboard

This month Rwanda officially launched the Rwanda Land Dashboard (RLD), an innovative tool designed to automate and visualize data related to land transactions, usage, and valuation in real time.

Developed by the National Land Authority (NLA) in collaboration with the GanzAfrica Foundation, the RLD aims to bolster transparency and governance in land management by providing daily updated statistics accessible to the public.

The RLD facilitates detailed monitoring of land use trends, enabling informed decision-making for citizens and stakeholders involved in the land sector. By improving the monitoring of land services, the dashboard helps identify areas that may need adjustments or interventions.

"Financial institutions and investors will benefit from credible and up-to-date land valuation data, thus reducing risks associated with mortgage lending, real estate investments, and property development," said Environment Minister Valentine Uwamariya.

This data will offer private sector developers clarity on land availability, ownership structures, and market trends, which are crucial for compliant project planning and execution.

Rwanda faces unique challenges in land management, particularly due to its high population density and limited agricultural land, leading to fragmentation, soil degradation, and property disputes. According to a report from the Office of the Ombudsman, land conflicts accounted for 27.7% of complaints filed between 2021 and 2022, indicating it as a significant national concern.

In response to these challenges, the Rwandan government has enacted several reforms, including the regularization of land titles and the digitalization of land services. The recent introduction of the Land Administration Tracking Information System (LATIS) allows citizens to track the progress of their land service requests in real time, further enhancing transparency.

The digitalization efforts in Rwanda are expected to enhance real estate development, particularly in urban areas. Kigali and other major cities are currently grappling with a growing housing deficit driven by rapid urbanization and population growth. By 2050, Rwanda's population is projected to reach 22.1 million, necessitating approximately 5.5 million housing units.

Talking critical

Nina Myren, Chair, TCCA Legal and Regulatory Working Group and TCCA Board member

Action needed on security measures for physical critical communications infrastructure

In the telecommunications world, there is increasing visibility of and debates around cybersecurity – protecting the networks from digital attacks. Yet there should also be emphasis on the security of the physical infrastructure. TCCA's Legal and Regulatory Working Group (LRWG) aims to focus the attention of critical communications providers to the importance of the issue, with the goal of catalysing the creation of a global standard for the physical security of infrastructure supporting critical communications.

Why is this important now? Because most of the current critical communication networks using narrowband technologies such as TETRA, Tetrapol and P25, are owned and operated by the state, and their physical security is assured by the state to the extent deemed necessary. However, the emerging use of commercial mobile operator (MNO) networks to support broadband critical communications, particularly as Radio Access Networks, is changing the operating model.

TCCA describes 'critical communications' as "communications services that are critical for the successful delivery and completion of the missions, tasks and operations of professional users who rely on being in contact when it counts. There are many and varied types of operations which need critical communications. These include public safety and security, emergency services, critical infrastructure, public utilities, transportation, critical industries and related activities, where failures in critical communications would lead to catastrophic degradation of services. This in turn could place critical services and citizen safety and security at immediate risk."

Telecommunication infrastructure consists of several elements, including electronic components and passive elements such as physical sites and towers. The physical security of these network elements is of paramount importance, but it is debatable whether the measures that MNOs are currently adopting in this regard are sufficiently robust and fit for purpose.

First responders require critical communications to be reliable, available and stable to a very high degree. Assuring these characteristics would be the responsibility of the state or emergency services when the network is owned, managed and operated by either. However, it becomes complicated when the operating model of the new broadband networks for critical communications rely on MNOs for some or all their functions.

There is no universally agreed definition of what 'good' looks like with respect to physical security of infrastructure for critical communications. Different countries may have different ambitions and needs, depending on the evolving threat picture and resources, including finances, available. A new white paper produced by the LRWG aims to stimulate discussions that will ultimately lead to an agreed regulatory baseline that all nations must agree to meet.

The white paper looks at the measures in place in several countries around the world in the context of their approach to broadband critical communications. To create greater cohesion, the paper identifies two potential approaches:

a. impose security obligations through legislation/regulation;
b. rely on provisions in the contract between the critical communications operator and the MNO/infrastructure provider.

The LRWG's assessment is that while each approach has advantages and disadvantages, a combination of the two would serve the interests of the critical communication services best.

The governmental critical communication networks may obligate MNOs to adopt sufficient measures to ensure the security of the network elements that are used for critical communication by legislation and/or regulation, or by contract with the relevant MNOs. While enforcement of a contract between parties will require legal action, legislation/regulation has the force of law and enforcement is a process between the MNOs and the respective regulator. The main difference between the two options is under regulations, enforcement is primarily in the hands of the regulator with legislated sanctions while under contract, it is the right and the responsibility of the governmental critical communications provider with restitution being primarily damages or specific performance.

With legislation/regulation there will be a baseline that all MNOs would be obligated to meet and other interested parties would be aware of, including principles for cost-ceiling and cost sharing between the MNOs and the critical communication operator. This would enable MNOs to make better informed decisions, particularly when bidding to provide services for critical communications. Compliance with the requirements would be a statutory obligation, which would be easier to harmonise across jurisdictions, making way for multi-state standards.

On the other hand, legislation/regulation need to be carefully crafted in order to make the obligations proportionate as the scale of MNOs' engagement may vary. Addressing developments in technology or the market may be more complicated as it will require legislative amendments. Since the regulator will be the enforcing authority, the critical communication operator may have limited access to information on MNOs' compliance, unless access to that information is specifically granted through the legislation/regulation.

Contractual arrangements would make it easier to design individualised and proportionate obligations, and to update the contractual provisions in line with developments in technology and the market. However, it would take time, effort and expertise to negotiate standards of security with the MNO acceptable to the critical communications operator, particularly if there is no legally set minimum standard. It would also be challenging to monitor compliance by the MNO and would require specific contractual provisions that empower the critical communications operator.

Though new legal/regulatory obligations on physical security may increase the costs and burden of compliances for MNOs/infrastructure providers, it would have a salutary effect due to the improved security and resilience of the network, which is being increasingly sought by consumers, particularly business customers.

The white paper 'Legal and Regulatory aspects relating to the physical security of telecommunications infrastructure used for critical communication services' can be read here

50% of Scancom's service revenue attributed to internet data

Scancom PLC (MTN Ghana) has announced its annual financial results for 2024, revealing that the internet generated 9 billion cedis, accounting for 50.2% of the company's service revenue — up from 43.9% in 2023. This increase is attributed to a 53.8% surge in data revenues.

The growth in data revenue was driven by a 13.7% rise in the number of active data service subscribers, coupled with the growing adoption of smartphones among users. Scancom reported a 19% increase in the volume of megabytes consumed per active user each month, a trend that supports the company's ongoing investments to enhance network capacity and quality. The company invested 4.39 billion cedis in infrastructure improvements during the year, underscoring its commitment to delivering top-tier service.

The contribution of data to MTN Ghana's revenues has consistently grown in recent years, rising from 28.4% in 2019 to 39.2% in 2022, and now to over half of the total service revenue. In stark contrast, voice revenues have experienced a decline, dropping from 45% in 2019 to just 19.7% in 2024. This decline reflects the increasing popularity of Over-The-Top (OTT) services, such as Facebook and WhatsApp, which continue to reshape consumer behaviour and preferences. Meanwhile, the contribution of mobile financial services has also risen significantly, increasing from 18.6% in 2019 to 24.9% in 2024.

AGEFAU allocates $72.06 million for telecommunications access in 2025

The Universal Access Fund Management Agency (AGEFAU) has announced plans to allocate 43.35 billion CFA francs to enhance telecommunications access in Mali in 2025.

AGEFAU intends to focus on expanding telecommunications network coverage, establishing universal access centres, and implementing health-related initiatives, including telemedicine services aimed at improving maternal and neonatal health this year.

These efforts are critical as they aim to address the digital divide in Mali. According to the International Telecommunications Union (ITU), as of 2023, about 30% of Mali's population, estimated at around 24 million, lacked access to 3G network services. The coverage gap widens significantly with 4G, affecting 47% of the population. In contrast, 2G networks reach 100% of the population, but internet penetration remains low at about 33.1%, significantly overshadowed by mobile telephony's 67.3% penetration rate.

Despite these ambitious plans, AGEFAU faces several significant challenges that may hinder progress, including delays in budget approvals, non-payment of contributions by some telecommunications operators, and security and health issues impacting Mali. Moreover, the agency reported that only 51% of its targets for the 2024 fiscal year had been met, underscoring the need for improvement in operational execution.

In response to these challenges, AGEFAU has implemented precautionary measures following an Auditor General's report that identified administrative and financial irregularities. Changes to the agency's General Management have been made to enhance governance and ensure a more transparent and efficient management approach.

Malagasy government and Huawei to connect 1,600 villages

The Malagasy government has announced a plan to connect over 1,600 villages to telecommunications services in collaboration with Huawei.

This initiative aims to accelerate the country's digital transformation and was unveiled by Stéphanie Delmotte, the Minister of Digital Development, Posts and Telecommunications.

This village connectivity project follows the ongoing 'Digital Menabe Project,' which aims to provide telecommunications access to 200,000 people in the Menabe region. A partnership agreement for this initiative has already been established with Huawei. The Malagasy government also aims to achieve coverage in 95% of remote rural areas. Minister Delmotte highlighted the effectiveness of Huawei's solutions, such as 'Rural Star,' which are described as technologically advanced, cost-effective, easy to deploy, and well-suited for large-scale implementation.

Bayobab partners with Infobip to enhance SMS connectivity

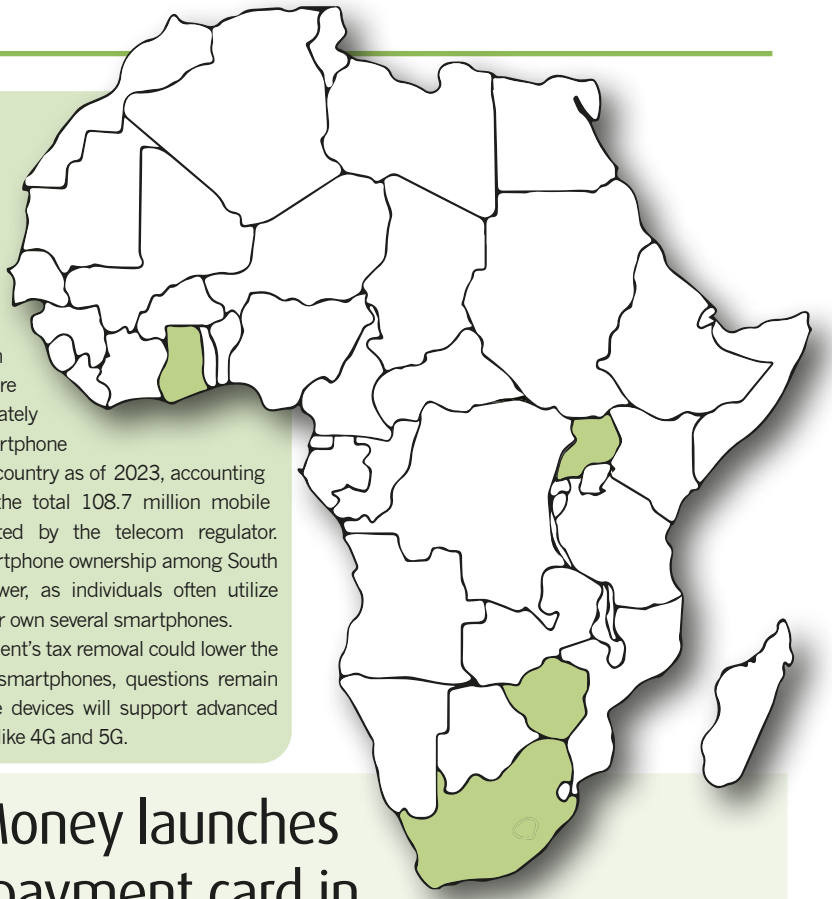
Bayobab has announced a strategic five-year agreement with Infobip to leverage its Communication Platform as a Service (CPaaS), which will enable Bayobab to utilize Infobip's Customer Modules, Routing management, and security solutions for campaign management, APIs, analytics, and SMS delivery across the African continent.

Through this partnership, Bayobab aims to streamline its SMS connectivity while reducing administrative costs associated with messaging services. Infobip's advanced platform simplifies the process for brands, allowing them to securely connect once and manage SMS traffic to MTN and other mobile network operators (MNOs) without the need for individual connections.

"We wanted to simplify how brands manage messaging in Africa with a single access point, high-quality service, and necessary controls," said Kedar Gupte, Chief Mobility Business Officer at Bayobab. "Our partnership with Infobip equips us to fulfill this vision on a large scale and is crucial for tapping into Africa's growth potential, where consumers increasingly demand messaging solutions, chat applications, and internet access."

"Our partnership optimizes Bayobab's SMS connectivity and routing across Africa, supporting its expansion plans. We have made significant investments in our CPaaS enablement capabilities, which now serve MNOs worldwide with top-tier security and efficiency," said Matija Ražem, Chief Commercial Telecom Officer at Infobip.

South Africa to eliminate import tax on affordable smartphones



The South African government has announced plans to eliminate a 9% import tax on smartphones priced below 2,500 rand (approximately $137), effective 1 April. This initiative aims to make entry-level smartphones more affordable and encourage greater adoption across the country.

This measure was included in the 2025 budget presented to Parliament by Finance Minister Enoch Godongwana. Government officials noted that the objective is to enhance the accessibility of smartphones within the lower price bracket and to bolster efforts for digital inclusion among low-income households.

The decision comes at a crucial time as the government is transitioning from 2G and 3G networks to 4G and 5G, making smartphones increasingly vital for internet connectivity in South Africa.

According to the Independent Communications Authority of South Africa (ICASA), there are approximately 75 million smartphone subscriptions in the country as of 2023, accounting for about 69% of the total 108.7 million mobile subscriptions reported by the telecom regulator. However, actual smartphone ownership among South Africans may be lower, as individuals often utilize multiple SIM cards or own several smartphones.

While the government's tax removal could lower the costs of entry-level smartphones, questions remain about whether these devices will support advanced mobile technologies like 4G and 5G.

Flutterwave secures approval for inward remittance services in Ghana

Flutterwave has obtained approval from the Central Bank of Ghana to offer inward remittance services. This significant development marks a vital step in Flutterwave's mission to simplify payment processes across the continent.

The company highlighted the rapid growth of Ghana's financial sector, noting its high mobile phone penetration and a dynamic mobile money ecosystem. Flutterwave emphasized that an impressive 60% of foreign exchange transactions in Ghana are conducted through mobile money platforms, underscoring their crucial role in the financial lives of many Ghanaians.

In addition to mobile money, Flutterwave pointed out the burgeoning sectors of insurtech, lend-tech, and buy now, pay later services, all contributing to a vibrant and diverse fintech landscape in Ghana. The company acknowledged that the supportive regulatory framework established by the Bank of Ghana, along with the Ghana Digital Agenda, has fostered an attractive environment for fintech innovation.

"Remittances play a vital role in the Ghanaian economy, and our goal is to make the process as seamless as possible for Ghanaians in the diaspora looking to send money home," said Olugbenga Agboola, founder and CEO of Flutterwave.

Oluwabankole Falade, Flutterwave's chief regulatory and government affairs officer, expressed gratitude to the Bank of Ghana for their support and conveyed excitement about the potential to expand services within the country. With this approval, Flutterwave positions itself to enhance financial inclusion and strengthen the remittance infrastructure in Ghana, further facilitating the flow of funds into the economy.

Airtel Money launches virtual payment card in Uganda for seamless online transactions

Airtel Money has launched the Airtel Money Global Pay card in Uganda, which will allow users to make seamless online transactions both locally and internationally, directly leveraging their mobile wallet.

In partnership with Mastercard, Network International, and Diamond Trust Bank, the Airtel Money Global Pay card aims to provide Ugandans with a convenient and secure payment option. Users can generate the card directly through the Airtel Money app or via a USSD code, linking it directly to their mobile money accounts. The card is designed for versatility, enabling secure payments on e-commerce platforms, online subscriptions, and purchases from any merchants that accept Mastercard globally.

"We are launching a global card that can be used for purchases in any economy around the world, while also offering parental controls. Whether kids want to watch Netflix or listen to music, the possibilities are endless," said Japhet Aritho, Managing Director of Airtel Money.

This initiative is part of Airtel Uganda's broader strategy to diversify its service offerings and enhance competitiveness against major players like MTN Uganda, which has also introduced a similar virtual card in collaboration with the same partners. Recent statistics from the Uganda Communications Commission (UCC) indicate that the number of active mobile money accounts in Uganda has reached 32.1 million, with total transactions hitting 2.15 billion as of December 31, 2024.

Zimbabwe selected to lead Giga initiative

Tatenda Mavetera, Zimbabwe's Minister of Information and Communication Technology, has announced that the country has been selected to lead the Giga initiative, a collaborative effort between the United Nations Children's Fund (UNICEF) and the International Telecommunication Union (ITU) aimed at connecting schools to the internet and information resources by the year 2030.

According to UNICEF, the initiative leverages the organization's experience in education and procurement, ITU's regulatory and policy expertise, and the private sector's capability to implement technological solutions rapidly.

"The Giga Project: Accelerating global school connectivity. Zimbabwe has been selected in Southern Africa to implement this project, providing solar power and connectivity to various schools," said Mavetera.

Since the project's launch in 2019, UNICEF reports that it has offered connectivity support to 34 countries, increasing internet access for 7.79 million students, and has identified and mapped 2.1 million schools across 141 countries. The goal of the Giga Project is to map and connect up to six million schools worldwide that currently lack internet access by 2030.

"At MWC, we discussed concrete projects and strategies to tackle these challenges. We will soon initiate a 15-million-Euro broadband infrastructure mapping project to fulfil our mandate," said Cosmas Luckyson Zavazava, director of ITU.

YOA Cable invests 160 million Rand to expand fibre manufacturing in South Africa

YOA Cable, a local manufacturer of fibre optic cables in Africa, has announced a significant investment of 160 million rand aimed at enhancing its manufacturing capacity through the expansion of its factory in Durban, South Africa. The investment is strategically aligned with the growing demand for digital infrastructure in the region.

"Our journey began with an initial investment of R150 million, which enabled us to establish a local presence in the manufacturing of fibre optic cables in South Africa. This new strategic step will allow us to transform our business, significantly increase the production capacity of locally manufactured fibre optic cables, and explore new growth opportunities in the Southern African region," said Pieter Viljoen, CEO of YOA Cable.

In an era where connectivity is crucial for development, this investment supports the ongoing efforts of governments and telecom operators to bridge the digital divide in South Africa. By optimizing local production capabilities and making vital infrastructure more accessible, YOA Cable is actively contributing to the enhancement of digital infrastructure within the country.

It is important to note that increasing production capacity does not inherently guarantee widespread adoption of fibre optic technology. Several challenges remain, including high installation costs, the accessibility of services to various populations, and the need for complementary infrastructure both in South Africa and across the African continent. Additionally, YOA Cable will face competition from several established players in the sector, and it will be crucial for the company to differentiate itself by demonstrating the quality and competitiveness of its products.

As YOA Cable moves forward with this investment, it aims not only to bolster its manufacturing capabilities but also to contribute significantly to the enhancement of digital connectivity throughout the region, fostering economic growth and development.

Talking satellite

Joe Chan, Chairman, Space Data Association

Achieving satellite sovereignty

The cost of manufacturing and launching satellites has greatly reduced over the last ten to fifteen years following significant technological advancements. As satellite technologies matures and more efficient manufacturing processing which has lowered production costs, and reusable launch technology has greatly reduced the cost of getting said satellites into space. These drastically reduced costs have opened the door for both smaller countries and developing countries such as those in Africa, to develop their own satellite capabilities. Botswana for example, recently launched its first satellite, BOTSAT-1, an Earth observation satellite, and Senegal launched its first satellite, GaindeSAT-1A, last year, a nanosatellite providing Earth observation and telecommunication services.

Although a growing number of African nations are launching their own satellites, there still tends to be a reliance on other countries for support with construction, for launch capabilities (because Africa does not have its own launch facilities) and for visibility once in space. Satellite operators need effective space situational awareness (SSA) systems so that satellites and other objects can be monitored and tracked, to ensure satellites can operate safely without collisions. Africa is still developing its infrastructure for this, so African nations are either operating their satellites with high risks or are reliant on other countries to provide that capability, which impedes their sovereignty.

Benefits delivered by satellite technology

Africa is a vast land mass with great swathes of rurality, and often very limited infrastructure. Large areas remain underserviced by terrestrial connectivity networks, which has significant socio-economic impacts. Satellite technology can help to address this digital divide by providing connectivity to those areas, including even the most remote communities, enabling improved access to information, education, healthcare, and employment opportunities. Beyond improved access to broadband connectivity, satellite technology can also be used for surveillance purposes, helping to monitor border activity, as well as for intelligence gathering, to enhance defence and security.

Satellite technology is also a critical enabler in disaster recovery because vital lines of communication can be quickly established to support coordinated response and recovery efforts. Satellite data also plays a crucial role in supporting agriculture through monitoring weather and environmental conditions, helping farmers to mitigate droughts and extreme weather events. This kind of environmental monitoring is becoming increasingly important as the impact of climate change becomes more evident. Additionally, governments can also use remote sensing and satellite imagery to monitor deforestation, track illegal mining, and manage natural resources more effectively.

While having access to satellite connectivity can bring significant benefits to African nations, these benefits are amplified if countries can develop satellite sovereignty. There is a growing realisation among African nations that by developing their own satellite capabilities, they can gain greater levels of autonomy though having more control over technology and improved access to satellite data. Additionally, having sovereign satellite programs empower nations to ensure that services provided by satellites meet their specific needs.

Monitoring and protection

Once launched, it's critical that satellites can operate safely, and avoid collisions with other objects. Not only could a collision event damage or destroy a valuable satellite, but it could also result in an irreversible increase in the volume of debris in orbit. This would further increase the risk of collisions, putting the long-term sustainability of space at risk for all users. The number of satellites and other objects in space has grown significantly in recent years and is set to continue on the same trajectory for the foreseeable future. As space becomes more congested, the risk of collision is increasing and the need for effective systems that can track the movement of satellites and other objects is becoming more important.

Although African nations are making great strides in advancing their space programs, they still face challenges in monitoring their satellites and ensuring their safety in-orbit. Space Situational Awareness (SSA) systems provide real-time insights into the position and movement of objects in orbit, enabling satellite operators to detect potential collisions and take corrective action when necessary. Having access to effective SSA systems not only protects satellites from collisions but also helps to ensure the longevity and operational success of national space programs, so is crucial for African nations. Additionally, having SSA systems provided by an international organization that operates independently of any one country, such as the Space Data Association (SDA), is an important step towards satellite sovereignty.

The SDA brings satellite operators together to support the controlled, reliable and efficient sharing of data critical to the safety and integrity of the space environment. It collates independently pooled data from operators and other available sources of space object information to prevent collisions by identifying and assessing the risk of close approaches between objects in orbit and providing collision warning services. Collaborating with an independent international organization like the SDA will allow African nations to access effective and independent SSA systems.

Final thoughts

Achieving satellite sovereignty is not just about developing and launching satellites but also about protecting them once in space. As these nations continue to expand their space programs, having full visibility over their satellites once in-orbit will be integral to ensuring that their investments yield long-term benefits. This is only possible through effective and accurate SSA systems. As Africa continues to harness the potential benefits provided by satellite technology, accessing independent and effective SSA systems and collision warning services will be key to maintaining their presence in space and achieving satellite sovereignty.

Beyond the call: the rise of Africa's techcos

The African telecoms industry is at a crossroads. Once focused solely on connectivity, operators are now evolving into technology companies — or 'techcos' — to expand their service offerings, drive revenue, and remain competitive in a rapidly digitising world...

The shift from telco to techco marks a significant transformation in the telecommunications industry, as companies expand their focus from traditional voice and data services to a broader array of technology-driven solutions.

"The shift from telco to techco is crucial for African operators because it allows them to diversify their revenue streams beyond traditional connectivity services," says Nitesh Singh, MD and Communications Media and Technology lead for Africa at Accenture. "This is particularly important in Africa, where many operators face challenges such as low average revenue per user (ARPU), high competition, and limited access to capital."

Aleksejs Beljakovs, CEO of Digital Tide, echoes this sentiment, pointing out that traditional growth avenues are running dry: "growth won't continue forever. Even now, the SIM card penetration rate is high. At the same time, competition drives telephony and internet ARPU too low. It seems to me that additional services, especially in B2B, are the only way to increase ARPU."

Umair Siddiqui, Head of Telco and Service Provider GTM for EMEA at Quintica, highlights how value is shifting: "traditional revenue streams from voice are drying up. Real value and revenue are being generated on the business services and managed services side of the modern telco. This market opportunity is going to be triple their traditional voice and data ARPU, which is still very low in Africa at around $2 compared to US equivalents at around $18-22."

"For Africa specifically, transforming into a techco will give operators a massive advantage in their market beyond just connectivity services," says Ari Banerjee, Chief Strategy Officer at Netcracker. "As the demand for digital services grows, operators will need to upgrade their networks and IT infrastructure to support these next-generation offerings and compete with technology companies that are making forays into these markets."

The biggest benefits

Transitioning from telco to techco allows operators to diversify their revenue streams, moving beyond traditional voice and data services to offer high-value digital solutions such as cloud computing, mobile money, and IoT. This shift enhances customer experience, fosters innovation, and improves profitability by tapping into new markets with higher margins.

"The biggest benefit for telcos in making the transition to techcos is the ability to diversify and expand their revenue streams," Singh states. "This transition positions telcos to be key players in the digital economy, enabling them to capitalise on emerging opportunities and drive sustainable growth."

Beljakovs agrees that the biggest benefit for telcos is the "additional revenue! But not just that - when competition gets stronger, services become similar, and prices drop at every operator, the only real way to compete is by offering services that are valuable for businesses. That's

the only way forward."

Siddiqui highlights how telcos can leverage their customer base for profitability: "they can cross-sell and upsell commercial and business customers onto long-term contracts where the upside is much bigger and more profitable. More predictable revenue and investment models based on fixed services over a longer term will also provide stability."

Additionally, the increased agility that results from the shift to techco enables telcos to rapidly develop and deploy new digital services, keeping pace with evolving customer demands and market trends. It also enhances operational efficiency, allowing for quicker adaptation to technological advancements and competitive pressures.

"One of the main results of a telco shifting to becoming more of a technology company is the ability to more quickly develop and roll out new products and services," adds Banerjee. "This high level of agility is only possible with streamlined internal technology and business processes and a robust partner ecosystem."

Transitional challenges

The transition from telco to techco comes with challenges such as legacy infrastructure, the need for new digital skills, and resistance to change. Telcos must also navigate intense competition, regulatory complexities, and significant investment requirements to ensure a successful transformation.

Beljakovs warns against overcomplicating the process: "it's important to be realistic. Let me give an example: a telco launches a cloud CRM for its customers, but the sales cycle is completely different from products like telephony and internet. As a result, telco sales representatives simply can't start selling it effectively. I strongly recommend beginning the transformation with the simplest products — those that are clear to both end users and salespeople. Sales will be the biggest challenge here."

Meanwhile, Siddiqui advises telcos to focus on their strengths: "understand your core strength. Taking your eye off the ball if core network is your strength will be a challenge. Many telcos have opted to acquire rather than build in order to create new service offerings."

Indeed, industry standards like TM Forum have become key in driving standardisation across the tech stack. By adhering to these standards, telcos can streamline service provisioning, accelerate digital transformation, and seamlessly integrate new technologies such as AI, automation, and IoT. This standardization also fosters collaboration between telcos and technology partners, reducing operational complexity and ensuring scalability in an increasingly digital and competitive landscape.

"The winners will be those who can manage complex and bespoke CPQ on the customer side with speed to provision and slice up their network on the back end. Balancing the revenue, performance and service delivery is the art of the possible for the next gen telco," adds Siddiqui.

Indeed, collaboration with technology partners, startups, and ecosystem players accelerates innovation and helps telcos access the expertise needed for a seamless transition. Strategic alliances also enable operators to expand their service offerings and stay competitive in the evolving digital landscape.

"By partnering with trusted vendors whose products and solutions are well suited to digital transformation programs, telcos have a much higher chance of success than striking out on their own," notes Banerjee.

For Singh, execution is the critical factor: "the transformation requires a clear strategic vision, strong leadership, and careful execution. Potential challenges include resistance to change, legacy systems, security concerns, market competition, and financial risk."

Singh notes that legacy systems and infrastructure can also pose barriers to innovation, requiring careful planning for IT modernisation.

"Telcos do not have to entirely reinvent the wheel to undertake a techco transition, but they do need to ensure their IT systems are modernized and upgraded to be more agile and able to support future requirements. The only way to do this is through an open, standards-based, modular and cloud-native platform," advises Banerjee.

Singh adds that telcos can leverage their existing legacy infrastructure effectively while transitioning to techcos, but it requires a strategic approach.

"Starting from scratch is not always necessary, and in many cases, it is more practical and cost-effective to modernise and integrate legacy systems. While starting from scratch may be necessary in some cases, leveraging existing legacy infrastructure can be a viable and cost-effective strategy for telcos transitioning to techcos," explains Singh. "By adopting a strategic approach to modernisation and integration, telcos can effectively utilise their existing assets while embracing new technologies and driving innovation."

The role of automation

AI and automation can play a critical role in the telco to techco transition by enhancing efficiency, optimising network performance, and enabling personalised customer experiences. AI-driven insights help telcos predict demand, reduce downtime, and improve service delivery, while automation streamlines operations and lowers costs.

Siddiqui sees AI playing a major role in customer experience and network performance. "Highly flexible product offers can be generated based on a 360-degree view of customer behaviour. AI Ops will help align demand with uptake and stop revenue leakage through wasted availability."

"AI and automation are essential for telcos transitioning to techcos, driving efficiency and unlocking new revenue streams. They enable enhanced customer experience, network optimisation and automation, streamlined operations, data-driven insights, and product and service innovation," says Singh.

"Both AI and automation are critical to any digital transformation program. These help the telco with improvements to operational efficiency and the ability to easily manage complex data, allowing for real-time insights and better agility overall," agrees Banerjee.

Beljakovs, however, remains sceptical of AI's immediate impact: "right now, there's too much buzz about AI. The future is here, that's for sure. But from a telco perspective, revenue is the most important thing. We need to identify AI implementations that generate not just buzz but real revenue."

Envisioning the next chapter

The future of Africa's telecommunications landscape is poised for a transformative leap as traditional telcos evolve into dynamic techcos.

Beljakovs predicts a cloud PBX boom: "B2B customers need more — they need to control employee conversations, automate workflows, and integrate SIM cards with their CRM systems. We're already seeing a boom in CRM adoption across Africa, and a cloud PBX boom will follow. In the next few years, every telco that wants to retain its customer base and increase ARPU will need to offer telephony bundled with a simple, cost-effective, and easy-to-use cloud PBX with a mobile app. I see no reason why this global trend wouldn't take off in Africa as well."

"We expect a bright digital future for Africa, with many signposts pointing towards a surge in startups and venture capital interest. This is driven by a decrease in the relative risk of African investments, regional resilience, and long-term structural trends like a young, urban, and tech-optimistic population," says Singh. "Accenture suggests that global companies should partner with local governments and businesses to navigate the regulatory environment and understand local needs. They also highlight the potential of low-code solutions to democratise digital innovation in Africa, empowering local developer talent and creating new solutions for the African market."

"The African telecom market is growing very rapidly, with new innovations and diversification into new areas happening on a daily basis. I expect operators in that market, including with help from various governments, are investing in their infrastructure through transformation initiatives to not just deliver improved connectivity to citizens in all areas of the continent but also to boost local economies," asserts Banerjee.

The message from industry leaders is clear: Africa's telcos must embrace the shift to techcos, or risk being left behind. By evolving their business models, investing in new technologies, and expanding their service offerings, operators can secure their place in Africa's digital future. ■

Revolutionizing connectivity with the power of automation

Alain Maupin, Vice President and Head of Customer Unit Central East Africa at Ericsson

What is Ericsson spearheading at MWC this year?

This year's MWC marks a major shift from previous years. Ericsson is focused on transforming the industry by moving from traditional, purpose-built technology to open ecosystems and partnerships. We have over 70 partners, including Google, Apple, and leading CSPs like Singtel, showcasing how to monetize new technologies.

One of our biggest innovations is Aduna, which functions like an 'App Store' for network infrastructure. Just as the iPhone revolutionized mobile applications in 2007, Aduna is doing the same for network programmability. It provides an open platform where developers can create and deploy services tailored to specific network needs.

Aduna is still in its early stages, but we've signed our first exposure deal with an operator in Southeast Africa. This allows network capabilities to be exposed via APIs, paving the way for more advanced services. The next step is expanding these API reselling capabilities to other markets.

Another key area this year is mission-critical connectivity, which ensures secure and robust connections for industries like healthcare, utilities, ports, and defense.

We're also focusing on AI-driven operations, automating complex tasks like optimizing bandwidth for large events in real-time. There's been a significant shift compared to previous years around the pervasive presence of AI. It's not just a buzzword; these technologies are now integral to how we operate.

If we stick to the traditional method of manually configuring everything, we won't be able to manage effectively. We need to introduce intelligent engines that can enhance operations by driving performance and predicting potential degradation before it occurs, enabling us to deliver superior connectivity and services. Automation significantly simplifies operations and brings cost efficiencies to managing complex technologies. It feels almost magical, and I love it!

How have global network changes impacted Africa?

Africa is still in the process of building high-capacity mobile broadband networks. Over the past five years, the number of people covered by mobile broadband has more than doubled.

One key development is the adoption of fixed wireless access (FWA), which is becoming the first real 5G use case in Africa. Many suburban areas lack fibre infrastructure, so FWA enables high-speed internet for homes and businesses, supporting services like streaming and enterprise applications.

Though still in the early stages, FWA has strong commercial merit. It will help enterprises, industries, and port facilities access high-speed connectivity that is otherwise unavailable. African operators are looking for new revenue streams since traditional data revenue growth has not kept pace with demand, and FWA offers a promising new avenue for monetization.

How are new connectivity innovations affecting heavy industry?

In the Middle East and Africa, we have established a dedicated organization called 'Mission Critical' within Ericsson to engage in this space. We see significant opportunities in sectors like mining, port connectivity, and utilities. Countries such as Zimbabwe, South Africa, Tanzania, and Angola have abundant mineral resources and potential for development.

We've successfully deployed similar initiatives in places like France and the western part of Australia, as well as northern Sweden. Recently, we conducted a proof of concept (POC) in South Africa, which proved to be very successful. Our goal is to replicate this success and enhance connectivity in the mining sector, enabling greater automation and addressing safety concerns. By automating processes and utilizing machines instead of relying solely on human labour, we can significantly improve health and safety for workers.

This is definitely a growth area for us.

What role does connectivity and automation play in sustainability, and how is Ericsson contributing to the green ecosystem?

Energy efficiency is a top priority for Ericsson. Our R&D efforts focus on reducing energy consumption in our equipment. When launching 5G, our goal was to ensure no increase in power consumption compared to 4G, despite the higher capacity demands.

We've developed technologies like sleep mode. For example, with Deep sleep mode, we can go up to 97% reduction in energy consumption on Massive MIMO Radios like 3255. We also align with customers' sustainability

targets to support their Net Zero ambitions through energy-efficient solutions.

Net Zero is our ambition, and we take it very seriously. We aim to achieve it by 2040, aligning with the sustainability goals of our customers and the broader industry. While it's a challenging goal, we are committed to making continuous improvements in energy efficiency.

What can you tell us about Ericsson's key strategic partnerships?

One major initiative is Aduna, which brings together key industry players like Verizon, Etisalat, Telstra, and Singtel. Aduna is becoming a key enabler for us. These partnerships are crucial for us.

Of course, we also have other partnerships that may not be as visible as those we showcase prominently. For instance, we are working closely with Apple. Recently, Apple released a new iOS update that will enhance network slicing, which enables us to allocate certain resources with specific quality of service levels. The new iOS can now detect the type of service you need, ensuring that you receive the required quality of service. This means that when you need high performance, the network can interact with the infrastructure to provide enhanced resources, ensuring a seamless experience. This is another important strategic partnership that I believe is worth highlighting.

What is Ericsson's vision for emerging ICT trends?

Automation and AI are at the core of Ericsson's strategy. AI is embedded in network operations, enabling predictive maintenance and automated optimization.

For example, AI-driven algorithms can now predict KPI degradation — similar to how a doctor diagnoses health issues. If a network issue is likely to occur, the system can automatically recommend or implement corrective actions, improving performance and reducing manual intervention.

Human oversight will always be needed no matter how advanced the automation. Many repetitive optimization tasks can already be fully automated, but more complex decisions still require human intervention.

For example, intent-driven AI operations allow network engineers to request a specific outcome (e.g., more throughput in a stadium during a football match), and AI automatically configures the network to achieve it. However, operators can still choose to approve or adjust these actions manually. This balance between automation and human decision-making is a key question not just for telecom but across all industries adopting AI.

Can you share more about the new products Ericsson is launching at MWC?

Naturally, AI and automation increase power demands, but Ericsson is actively mitigating this through energy-efficient network infrastructure. I'm excited to announce that we're launching new radios tailored specifically for high-capacity environments in the African market.

This product doesn't just respond to existing demands but anticipates future capacity needs as data consumption continues to grow. The availability of the power grid is inconsistent across the continent, and operational expenses can be high due to electricity costs or the pricing models used by power companies, which place significant financial burdens on operators. As a result, we need to focus on reducing weight and energy consumption.

In this context, we are excited to introduce a new radio model, specifically designed for FDD operation. This product is aimed at high-capacity urban areas, where there is significant demand for increased data capacity, particularly in spectrum bands well-suited for Africa. We crafted this radio in response to the specific needs expressed by our operators.

I've had numerous customer meetings this week, and there is considerable enthusiasm for the new radio. Clients are eager to know when it will be available and when they can expect it to be deployed. It's clear that there is strong demand for this product, and I'm proud that Ericsson has responded effectively to this need. ■

The future of communications: embracing the power of photonics

Chris Wright, CTO, Red Hat; and a member of the Board of Directors at the IOWN Global Forum

As we stand on the brink of a new technological era, the way we build and manage communication networks must evolve. The increasing demand for high-speed, low-latency, and energy-efficient networks is accelerating the transition from electronic to photonic infrastructure. To enable truly smart cities, power AI innovation, and drive sustainable industries, we need communication networks that operate at the speed of light.

High-speed, sustainable networks

The future of communications networks lies in shifting from electrons to photons. This transition is essential for meeting the demands of AI infrastructure, real-time data processing, and global connectivity. All-photonics networks (APNs) hold the key to unlocking these capabilities while significantly reducing power consumption. A fully optical network not only increases speed and bandwidth but also enables more sustainable digital ecosystems.

As we accelerate this transition, it's crucial to keep sustainability at the forefront. The environmental benefits of APNs are profound — offering reduced energy consumption and lower operational costs for organisations. Recognising this, Red Hat, in collaboration with IOWN Global Forum members, has established an Energy Efficiency and Sustainability Task Force.

A photonics-driven future

The transition from electronic to optical networks requires new infrastructure and smarter integration. Silicon photonics will play a central role in this evolution by embedding optical components directly into semiconductor chips, enabling faster and more efficient data transmission. In addition, optical switching will replace traditional electronic packet switching, further reducing latency and power consumption.

On a larger scale, technologies such as dense wavelength division multiplexing (DWDM) will increase network capacity by allowing multiple data signals to be transmitted over a single fibre. Meanwhile, reconfigurable optical networks will introduce real-time bandwidth allocation, eliminating bottlenecks caused by outdated electrical processing systems.

Despite these advancements, challenges remain. Managing heat in photonic chips and developing universal industry standards for optical networks are key areas that require attention. The IOWN Global Forum is actively addressing these issues by creating scalable frameworks for global adoption. The key to success lies in a phased approach, ensuring that hybrid electronic-photonic networks are deployed efficiently, reducing costs while preparing for a fully optical future.

Why CSPs must act now

Communications service providers (CSPs) cannot afford to delay the transition to all-photonics networks. The explosion in data consumption is placing unprecedented pressure on network infrastructure. In 2022, the average mobile user in Europe consumed 15GB of data per month — a figure expected to surpass 75GB by 2030, driven by AI applications, cloud gaming, immersive media, and ultra-HD streaming.

What worked in the past will not be enough for the future. While minor delays may be acceptable when browsing the internet, they are unacceptable for autonomous vehicles, remote surgeries, and AI-powered automation. These applications demand real-time responsiveness, making photonics-based infrastructure a necessity. The question is not whether CSPs should transition to photonics, but how quickly they can make it happen to avoid falling behind.

Aligning with sustainability goals

As organisations across the globe adopt AI to remain competitive, balancing technological advancement with sustainability is a pressing challenge. APNs provide a solution by enabling remote processing in advanced, energy-efficient data centres powered by renewable energy. By shifting workloads away from outdated, high-consumption facilities, organisations can reduce carbon footprints, lower energy costs, and improve overall efficiency.

This shift aligns with the United Nations' 2030 Sustainable Development Goals (SDGs), ensuring that digital transformation progresses in an environmentally responsible manner. APNs will be central to this effort, fostering a new era of energy-efficient computing and resilient communications infrastructure.

Photonics in wireless communications

The IOWN Global Forum is actively developing proofs of concept (PoCs) to explore how APNs can enhance wireless communication networks. One major initiative focuses on mobile fronthaul over APNs, which has the potential to reduce power consumption compared to conventional Ethernet-based networks. The Forum is also pioneering multi-layer hibernation techniques to improve energy efficiency in O-RAN (Open Radio Access Network) environments.

According to the GSMA, 76% of a mobile network's energy consumption occurs within the Radio Access Network (RAN). By enabling intelligent traffic steering and selectively powering down remote and distributed units during off-peak hours, APNs can reallocate optical network resources to other services, such as remote GPU processing, enhancing overall efficiency.

Beyond 5G RAN, APNs are also shaping the future of vehicle-to-infrastructure (V2I) communication. Some IOWN Global Forum members are actively developing roadside units (RSUs) that aggregate 5G PC5 traffic from vehicles and transfer high-volume data, including video images, to GPU-powered processing centres. These RSUs, connected via APNs, will enable faster and more accurate real-time vehicle communication, playing a crucial role in the development of smart transport systems and autonomous mobility.

The future is optical

The transition to all-photonics networks represents a fundamental shift in the way we build and operate digital infrastructure. From AI-driven applications and financial transactions to next-generation wireless networks, the advantages of APNs are undeniable. As industries and governments navigate the challenges of sustainability, scalability, and speed, photonics technology offers a clear path forward.

With data consumption skyrocketing and digital transformation accelerating, we must act now. By embracing all-photonics networks, we can pioneer a new era of connectivity, one that is faster, more sustainable, and built for the future. The question is no longer whether we should adopt photonics — it's how quickly we can make it happen. ■

The end of the in-house MNO data centre?

Times are a changing. The rampant digitisation taking place across the continent is causing a fundamental shift in MNO focus...

The demands placed on data centres by Africa's mobile network operators (MNOs) are driven by the need for high-speed, low-latency services, energy-efficient infrastructure, geographical distribution, and a constant push for scalability.

"MNOs demand ultra-low latency, high bandwidth, and robust network connectivity to support critical telecom operations, unlike traditional data centre users focused more on storage and processing," explains Nikki Blake, CEO & Co Founder, GTSS Global Technologie Sustainable Solutions; and ADCA General Secretary.

"In my experience, the differences (as always) are driven by the needs, where typically MNOs manage large volumes of real-time mobile data traffic, including voice, messaging, video streaming, and internet browsing, all of which require low latency, high availability, and robust connectivity. This is crucial for maintaining seamless customer experiences," notes Stefano Resi, Head of Data Center Sales for Middle East & Africa, Nokia. "Vice versa, other data centre players (such as enterprises or cloud service providers) might prioritize bulk data storage or business applications that do not have the same level of latency sensitivity."

Further, the differences extend beyond the technical challenges linked to telecommunications services delivery, through to the hardware itself.

"Historically, MNOs have built and maintained their own infrastructure, traditionally with a reliance on -48V DC power systems. Unlike traditional data centre users, who primarily depend on AC power and standardized cooling, MNOs require specialized power architectures, including large-scale rectifier systems and high-ampere-hour battery banks, bulky distribution systems due to the low DV voltages," highlights Menno Parsons, Founder and Managing Director, Master

Power Technologies.

"MNOs usually have the legacy requirements of -48V DC. The data centre operator must then be able to provide a central DC power panel or allow a customer to install individual rectifiers, which they must be able to bill," confirms Gbenga Adegbiji, CEO for Geniserve; and ADCA Board Member. "Moreover, some MNOs may have racks and equipment which may not follow the regular airflow of front to back but bottom to top. This usually requires careful planning when considering rack positioning and air circulation."

Non-negotiables

For colocation providers to successfully host MNOs, there exist several key requirements that go beyond standard colocation setups. But what exactly is non-negotiable?

"The most obvious answer would be an adequate power source. When using the term 'adequate' I mean Secure, Stable, Scalable," asserts Resi. "Less obvious, perhaps, is the capability of a colocation player to connect multiple networks and possibly peer them internally. This is an extremely attractive 'feature' for MNOs that can save costs, reduce latency and increase reliability. This is however only possible if the co-locator equips its data centre with a layer of flexible, secure, programmable data centre networking. With this move the operator will move out of the pure 'real estate' game and be ready to offer new extra services to its tenants."

"For co-locators to successfully host MNOs, they need equipment such as high-capacity servers, routers, switches, and cooling systems," adds Timi Fadeyi, Head - Data Center, Galaxy Backbone Nigeria; and ADCA Treasurer. "Redundant power supplies and backup generators are also essential to ensure uninterrupted service. While many African co-locators have started to invest in this equipment, there is still a gap in meeting the full requirements of MNOs."

Returning to the topic of power types, Parsons asserts that to host MNOs effectively, co-location data centres must accommodate both AC and DC power requirements. Although many modern telecom vendors now integrate AC-DC power supplies into their equipment, legacy Mobile Switching Centers (MSCs) and core network infrastructure still require dedicated DC power distribution. Key infrastructure components include:

- High-capacity rectifier and battery systems to support -48V DC loads.
- Low-latency network interconnects for seamless traffic routing.
- Carrier-neutral environments to allow MNOs to interconnect with multiple network providers.
- Edge computing capabilities to support distributed network architectures.
- Scalable power and cooling solutions to handle fluctuations in network traffic demand.

"Not every African co-location provider is equipped to meet these demands," says Parsons. "Many facilities are designed with enterprise or cloud customers in mind, where AC power and standardized rack configurations dominate. However, leading co-locators are adapting to these requirements, particularly as MNOs increasingly turn to external facilities for expansion."

Reliable access to DC power is a must for MNOs, as is access to fibre diversity for access to towers and additional data centres.

"Resilient power infrastructure such as generators, UPS systems, and DC Rectifiers, in what is known as an N+1 (or better) setup, are critical to MNO deployments. An N+1 setup provides a minimal level of resiliency by adding an additional backup component — a UPS, HVAC system or generator — to the N architecture to ensure uptime in the rare case a system goes offline. When one system is offline, the extra component takes over its load to ensure things continue to operate as expected," shares Roderick de Boer, Commercial Development Director – Africa at Equinix. "Due to the investment required for this level of redundancy, N+1 architecture is not universally available across all African data centre operators for all parts of their infrastructure, leading to lower SLAs than often required for MNOs."

Additionally, "co-locators should be aware of the high diurnal variation of data movements through the day, with 'peak' demands becoming a possible choke point to their operations," opines Jonathan Duncan, application engineering and technical solutions director, Africa at Vertiv. "To address this, they should therefore bolster their support systems and ensure that their data centres have the capacity to meet these peak demands. A robust power management system, that can shed non-critical loads, may be a requirement for the smaller edge-type, direct-current data centre. Additionally, differentiating between priority and non-priority subscribers can help optimise resource allocation and maintain service continuity during peak periods."

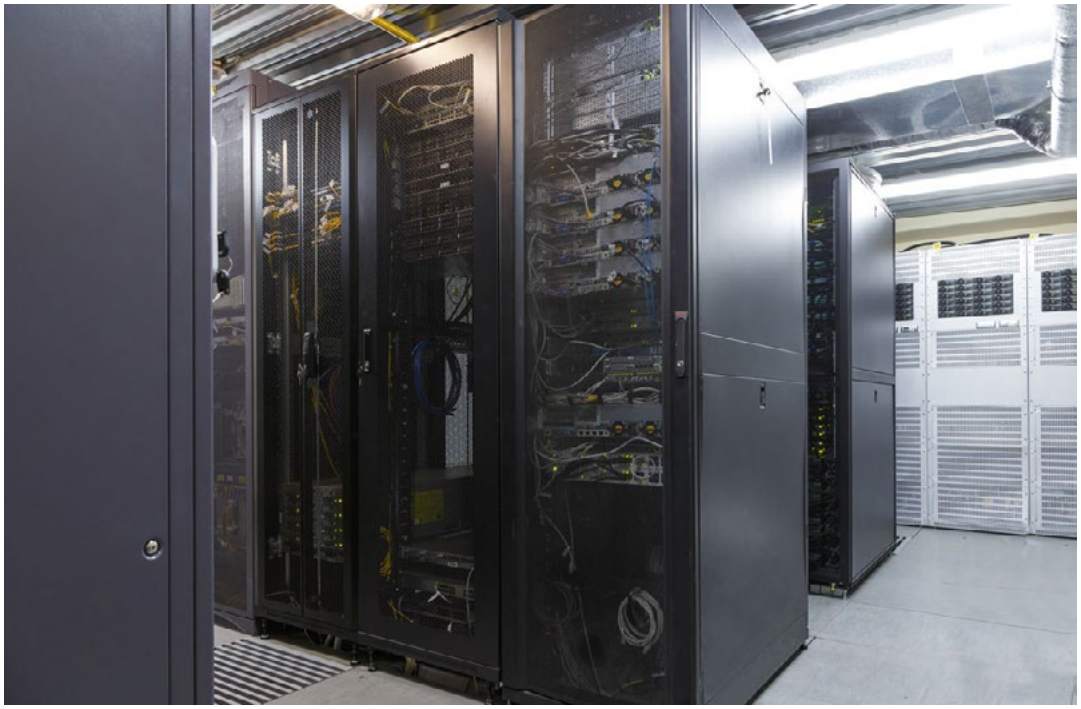
Elasticity is key

One of the key differentiators between MNOs and other data centre users is the fluctuating traffic volumes. Handling this fluctuating user traffic, while complying with Service Level Agreements (SLAs), requires colocation providers to implement flexible, scalable, and resilient infrastructure solutions.

"MNO traffic is inherently variable, influenced by network congestion, seasonal patterns, and large-scale events. Unlike enterprise workloads, which can be somewhat predictable, MNO traffic spikes can be sudden and intense," confirms Parsons. "Co-location providers must address this by deploying scalable power and cooling solutions that can rapidly adapt to demand surges; offering flexible interconnection capacity, ensuring that traffic peaks do not cause network bottlenecks; implementing AI-driven resource management to optimize energy use and load balancing dynamically; and ensuring robust SLA compliance with proactive monitoring, automated fault detection, and rapid response frameworks. The best co-location facilities are designed for elasticity, allowing MNOs to scale resources without compromising network

performance or reliability."

Meanwhile, Resi says that the SLA should be intimately connected with the visibility and control of the networks: "if the co-locator is in a pure real estate type of game, then its SLA will be purely on power and connectivity. The technical value added by the co-locator will be low and so will the price. Vice versa, if the co-locator manages to start offering the MNO control over its network, evolved protection mechanism, fast traffic engineering, then it can offer a much higher level of service and value (hence price) to its MNO tenants as well as the other enterprises."



Changing perspectives

The rise in mobile data usage, the rollout of 5G, and the need for reliable, secure, and scalable infrastructure make MNOs essential customers for colocation providers.

"Historically, many MNOs operated their own enterprise data centres, with some even offering co-location services. However, larger-scale, purpose-built data centre facilities have proven to be more efficient, making it more common to see MNOs leasing space. This trend, and the rate of growth in data consumption, suggests that MNOs will become increasingly significant to the co-location industry," notes Duncan.

"As large-scale high-quality colocation data centres become pervasive, there is now little reason for MNOs to have their own data centres," opines Ayotunde Coker, CEO, Open Access Data Centre; and ADCA Chairman. "This must move from afterthought to a strategic decision to leave the management of the data centres and capital expenditure to expert colocation providers. MNOs can focus their capital deployment into the network architecture and enhanced customer services."

Indeed, "MNOs are becoming an increasingly important part of the co-location business, particularly as the telecom industry shifts toward outsourcing non-core infrastructure. While cloud providers, enterprises, and financial institutions still dominate Africa's colocation market, MNOs are recognizing the benefits of shared infrastructure — reducing capital expenditure, improving redundancy, and gaining access to multi-network ecosystems," says Parsons.

However, the degree of focus on MNOs as data centre customers varies by provider and market maturity...

"MNOs are a significant part of the co-locator business. They contribute a substantial portion of the revenue and drive the demand for advanced infrastructure and services," says Fadeyi. "However, co-locators also serve other end users, such as internet service providers (ISPs) and enterprises, making MNOs an important but not exclusive part of their business."

"Five years ago, I would have said that MNOs are the primary, so-called anchor customer of a generic co-locator. This was when we started noticing several mobile operators building their own colocation companies and using their mobile business unit as anchor customers. Lately, however, I see that all colocation players are trying to win the business of the great American hyperscale companies that would use 50% (or more) space in their data centres, hence becoming the de-facto anchor customer," shares Resi.

The end of an in-house era?

Whether Africa's colocation providers can ultimately meet the needs of the continent's MNOs or if in-house data centre ownership is a better bet depends on several factors, including the evolving infrastructure demands of MNOs, the maturity of colocation services in different regions, and the trade-offs between using colocation services versus building and managing in-house facilities.

Blake says that, while co-locators can meet many needs, in-house data centre ownership may be preferable for MNOs requiring bespoke infrastructure and greater operational control.

"Africa's co-locators are making strides in meeting the needs of MNOs, but there are still challenges," adds Fadeyi. "In-house data centre ownership can offer more control and customization, but it requires significant investment and expertise. Co-locators provide a cost-effective solution with shared infrastructure, but they need to continue upgrading their capabilities to fully meet MNOs' requirements."

Coker agrees that the high-quality data centre requirements for MNOs can be met by the top end colocation providers, but "where there is no availability, out of necessity, MNOs may have to build their own data centres. Regulators may bring about systemic change if MNOs are encouraged to aggregate data centre infrastructure with colocation providers and thereby encourage the investment by colocation providers in high quality infrastructure."

In contrast, "I believe that the era of in-house data centres for MNOs is definitely over. Security, reliability, cost efficiency, internet peering, latency, and more are all parameters that make the colocation model extremely attractive for MNOs," says Resi.

Parsons, too, agrees that the in-house data centre model has become less viable: "data centre management is not a core competency for most telecom providers, and maintaining self-built facilities is costly and operationally complex. While some MNOs in Africa remain reluctant to fully transition, the global trend is clear — telecom operators are exiting the colocation business and focusing on network services rather than infrastructure ownership."

With the right investment in carrier-neutral connectivity, power support, and scalable infrastructure, Africa's leading co-location providers can meet the needs of the modern MNO – marking the beginning of a new infrastructure model.

"This is a critical time for Africa's data centre and telecom industries," shares Parsons. "The shift towards colocation presents significant opportunities but also challenges in aligning infrastructure capabilities with telecom-grade requirements. MNOs that embrace strategic partnerships with well-equipped co-location providers will benefit from greater scalability, improved redundancy, and reduced operational risk. Those that hesitate risk falling behind in an increasingly interconnected digital ecosystem." ■

The 60GHz opportunity

Transforming Fixed Wireless Access

Wim Van Thillo, CEO, Pharrowtech

Africa is undergoing a digital transformation, driven by a young, fast-growing population, thriving cities, and an increasing demand for connectivity. With its population expected to nearly double by 2050, Africa presents immense potential for economic growth and technological advancement. However, persistent challenges such as economic fragility, rising spending pressures on infrastructure, health, and education, as well as a deep digital divide, continue to limit progress. Millions of Africans remain without access to the internet, restricting opportunities in education, e-commerce, and remote work.

The connectivity challenge

While fiber networks have played a crucial role in broadband expansion globally, they face significant obstacles in Africa. The absence of legacy internet infrastructure means that upgrades are not an option, requiring costly new investments. Additionally, fiber installation is expensive and generally limited to densely populated urban areas where capital expenditure can be justified. Moreover, environmental factors such as challenging topography and the disruptive nature of underground cabling further complicate fiber deployment.

5G deployment in Africa lags behind the rest of the world due to spectrum constraints, infrastructure limitations, and affordability concerns. At the same time, satellite internet has also been proposed as a potential solution, but its high latency and low throughput make it impractical for long-term, large-scale connectivity.

Could FWA help bridge the digital divide?

Fixed Wireless Access (FWA) has emerged as a powerful alternative to traditional broadband solutions. Not only can FWA provide reliable, high-speed connectivity, but it can also be deployed rapidly and at a significantly lower cost than fiber, as it does not require extensive physical infrastructure.

Furthermore, FWA can utilize unlicensed frequency bands, reducing barriers to entry for ISPs and fostering competition. This competition helps drive down costs, making broadband more affordable for consumers — a critical factor in developing economies. Recognizing the need for alternative broadband solutions, several national regulatory authorities have made a groundbreaking decision by opening the 60GHz band for outdoor use. This move is a game-changer for FWA providers, offering several advantages:

1. **High-speed connectivity:** The 60GHz spectrum provides abundant bandwidth and ultra-fast speeds, delivering gigabit-level performance comparable to fiber.
2. **Lower deployment costs:** FWA networks utilizing the 60GHz band are up to 45% cheaper to deploy than fiber rollouts in urban areas, making broadband access more widespread and affordable.
3. **Rapid scalability:** Unlike fiber, which requires extensive trenching and investment, FWA can be deployed quickly, allowing service providers to scale their networks efficiently.
4. **Reduced network congestion:** Many wireless ISPs (WISPs) currently rely on congested 5GHz bands. The 5GHz spectrum, while effective for some applications, suffers from significant interference due to widespread usage by Wi-Fi networks, home routers, and existing FWA deployments. This congestion leads to increased latency, reduced data rates, and inconsistent performance, particularly in high-density urban areas. The 60GHz spectrum offers a clean, interference-free alternative for robust, high-speed connectivity, alleviating many of the challenges faced by ISPs operating in congested environments.

While FWA cannot entirely replace fiber backhaul and last-mile connectivity in high-density areas, it serves as a highly complementary solution. By rapidly extending high-speed broadband to underserved communities, FWA can unlock new opportunities in education, commerce, and remote work, helping to drive social and economic progress.

In densely populated cities, where multi-dwelling units and informal settlements pose unique connectivity challenges, 60GHz-based FWA provides an efficient and cost-effective way to deploy high-speed internet without the need for extensive cabling or disruptive trenching.

How WISPs can capitalize on the FWA opportunity

The opportunity for WISPs, particularly in urban areas, is substantial. As FWA solutions improve and key mmWave spectrum bands like 60GHz become widely available, it enables WISPs to rapidly address the needs of unserved and underserved communities, catalyzing economic development across African cities.

The opening of the 60GHz spectrum is just the beginning. Ongoing spectrum allocation efforts, combined with technological innovations such as advanced beam-steering techniques, will further amplify FWA's disruptive potential.

CMOS vs SiGe: the advantage of cost and scalability

In the development of FWA solutions, the choice of semiconductor technology plays a crucial role in determining cost, efficiency, and scalability. Two key contenders in the mmWave domain are Complementary Metal-Oxide-Semiconductor (CMOS) and Silicon-Germanium (SiGe).

CMOS technology is highly advantageous due to its lower cost, lower power consumption, and scalability. This makes CMOS a more attractive option for mass production, helping to reduce the overall cost of 60GHz FWA equipment.

SiGe offers some performance advantages. However, the higher production costs and limited production scalability of SiGe make it less suitable for large-scale broadband deployments.

As 60GHz FWA adoption grows, CMOS-based solutions are likely to dominate due to their affordability, scalability and ease of integration into consumer devices, further driving widespread connectivity across Africa.

Economic and social implications

The widespread deployment of FWA technology extends far beyond mere connectivity — it acts as a catalyst for economic growth, education, and social inclusion. By expanding broadband access, businesses can reach new digital markets, students can access vital online educational resources, and remote work opportunities can become more accessible.

Additionally, the lower barrier to entry in the 60GHz band encourages increased competition among WISPs, which in turn drives down costs for consumers and stimulates innovation in service delivery. This is particularly significant in Africa, where affordability remains a major challenge in achieving widespread broadband adoption.

As more countries across the continent adopt forward-thinking spectrum policies, FWA is set to become a dominant force in Africa's broadband landscape. The technology's ability to provide high-speed, scalable, and cost-effective connectivity positions it as a cornerstone of Africa's digital transformation.

Conclusion

Africa stands on the brink of a connectivity revolution. With the expansion of the 60GHz spectrum, WISPs and telecom providers now have a powerful tool to drive digital inclusion. By leveraging this technology, Africa can accelerate its path toward universal broadband access, unlocking economic opportunities and enhancing the quality of life for millions.

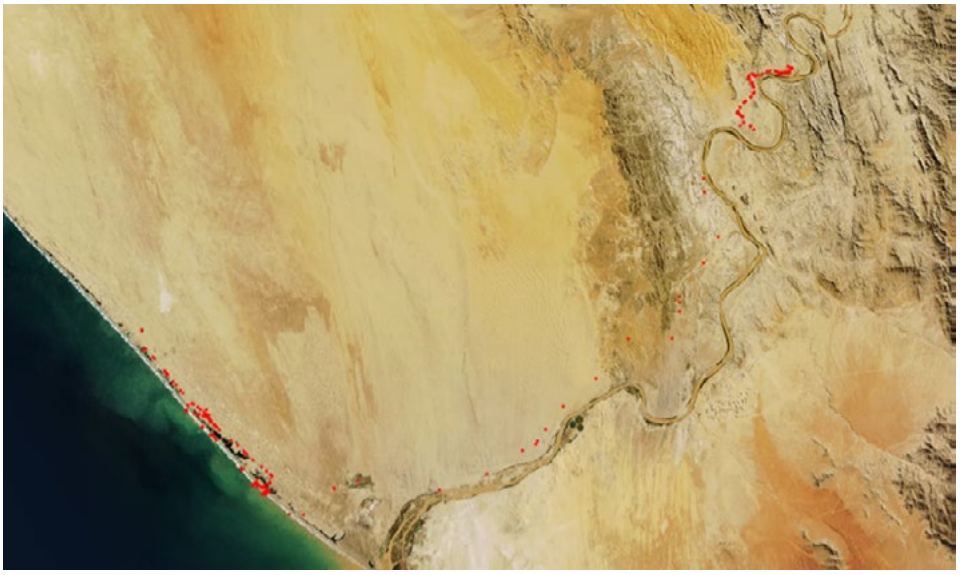
The future of connectivity is wireless, and the 60GHz spectrum is paving the way for an inclusive, high-speed digital Africa. ■

Namibia mine enhances driver safety via TETRA

Mining is inherently dangerous, with workers facing constant risk from cave-ins, explosions, and exposure to toxic materials. One of the critical challenges in many mines, particularly in remote areas of Africa, is the lack of reliable connectivity, without which workers are left vulnerable. Indeed, modern mines increasingly require robust critical communications systems to ensure worker safety, enabling real-time alerts, monitoring, and coordination in emergency situations.

One major mining company operating in Namibia approached Optalert to discuss trialling the Eagle Industrial early-warning drowsiness detection system, which detects the physiological warning signs of early onset drowsiness. A tiny LED is built into the lightweight frame of the glasses and measures the velocity of the user's eyelid 500 times a second. From this measurement the level of user fatigue can be derived in real time using the Johns Drowsiness Score (JDS).

The mine site in question was close to the ocean and covered a large area – some points were 40km from the centre of operations, and the only Wi-Fi available was in the town built for the mine with a very low range. Accordingly, the request to trial the Eagle came with a unique requirement – transmission of data via radio – leading Optalert to question how they could transmit data on a remote mine site without Wi-Fi or cellular coverage.



Data mapping showing the remote operating geography of the customer mine and location of drowsiness warning events (red dots) transmitted from Optalert systems via radio network

Modifying the components

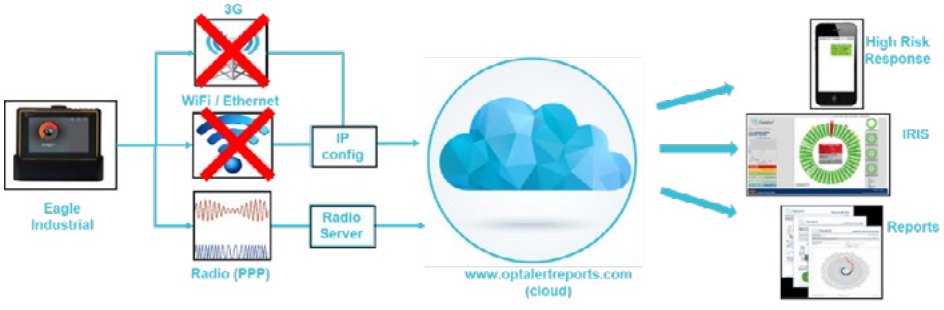
Optalert systems already produce a low-bandwidth data stream enabling them to transfer data in near real-time over cellular or Wi-Fi; but for the solution to work over radio, data transmission at even lower bandwidths was required.

"When we looked at the price of setting up a private network to cover the entire mine site, it was prohibitively high," says Renato Lopez, VP Sales LatAm, Optalert. "The radio solution was not even a compromise on quality. It had a lower price tag with rock-solid reliability."

Thus began a collaborative development project in conjunction with the mining customer and Getac, the manufacturer of the Eagle Industrial tablet hardware. The objective was to ensure that the mine site in Southwest Africa had a robust, reliable data transmission platform.

This involved modifying the Eagle Industrial data transmission protocol to work over a Motorola two-way Tetra Radio system, requiring changes to the Optalert vehicle-based software and Android operating system to support the Point-to-Point Protocol (PPP) via an external RS232 serial port. This permitted a direct interface to the radio terminals with no additional hardware or changes to the cloud-based infrastructure. No change to the Eagle Industrial data files was required, and the customer's network was configured to pass the data from the radio network to Optalert's FRP server in the cloud.

This, ultimately, enabled site-wide data transfer from Optalert systems and allowed the mine operator to monitor its drivers via Optalert's IRIS and view the data in Optalert's FRP Reports.



The data journey – data from the Eagle Industrial is sent via radio to Optalert's cloud server

From trial to success

The mining customer ran a three-month trial which enabled them to leverage their TETRA network via existing radio terminals in vehicles to enable drowsiness monitoring via Optalert's IRIS.

By taking a collaborative approach, Optalert created a solution for a customer operating in a very remote location, which saved them from having to purchase and install expensive new network infrastructure. This enabled the mine operator to monitor their drivers via Optalert's IRIS and receive daily and weekly reports based on the data transferred over the radio network. Given the low footprint of the system and the robustness of the radio network we installed, the mine operator had a rock solid, real-time view of all drivers' drowsiness on-site.

"Although a very long-standing technology, wireless communications still have a lot of applications – especially in remote regions! They are low-cost, reliable and can transmit across very large distances," notes Lopez.

Indeed, sites that are remotely located or greenfield often lack telecommunications infrastructure. However, they can transfer data via radio network and enable near real-time monitoring of the drowsiness levels of individual operators, as well as daily, weekly, and monthly reporting. This is a far lower-cost solution than building out a comprehensive network infrastructure. ■

Endeavour Mining strikes gold with DMR

Endeavour Mining is a major gold mine company operating in Côte d'Ivoire, Burkina Faso, and Senegal in West Africa.

While expanding their mining area, Endeavour Mining identified a problem with the communication equipment which was worsening over time to the extent that some facilities had no equipment for communication at all. Radio coverage access is required across the whole mining site for their 940 employees. The lack of reliable communications infrastructure challenged the operational efficiency of the mine as the on-site command and dispatch centre could not function properly.

A ruggedised solution

Endeavour Mining opted to invest in a devoted Digital Mobile Radio system and noted that Hytera's ruggedised equipment and radio terminals are designed to work well even in the severe environment of a mine and the high temperatures experienced in Côte d'Ivoire.

The mining company chose to apply a Hytera DMR XPT system founded on Hytera RD98XS DMR repeaters. The XPT is a multi-site digital trunking solution, which combines the advantages of DMR Tier II conventional systems and the properties of improved DMR Tier III trunked radio systems to expand network capacity at a compact cost.

Hytera HM78X mobile DMR radios and HP68X hand-held DMR radios were assigned to vehicles and staff correspondingly. The DMR XPT system was positioned across the whole mine to provide simple network coverage. As it was difficult to direct coverage into the mine pits, the vehicles were equipped with Hytera RD98XS DMR repeaters to provide mobile coverage and develop main network coverage wherever and whenever required. The repeaters are powered using solar energy.

A network bridge is used to connect the mobile repeaters to the fixed site main network repeaters to ensure unified connectivity and handovers. To make the process of communication easier, all radio channels are obtainable for communication, meaning, the radio user no longer needs to select a channel by hand. Free channels are automatically allocated for call requests and assigned dynamically.

XPT provides a profitable way to enhance capacity and gain additional features without having to invest in a developed DMR Tier III system. The vehicle-mounted, mobile RD98XS repeaters enable teams to stay connected wherever they go across the mining site, providing variable signal coverage where it is needed.

The HP68X handheld radios are protective against dust and moisture ingress and can endure a two-meter drop. The new and improved radios also use modernised technology such as cutting-edge AI-based noise-cancellation to decrease unwanted background noise and reduce howling, by this means ensuring high audio clarity, which is extremely important when users are operating in a noisy mining environment.

Finally, a Hytera SmartOne allocated communication platform was installed to provide powerful dispatching functions, including voice calls, GPS positioning services, messaging functions, and voice recording for report and command of the mine operations.

Thus, with the H DMR XPT two-way radio system, ruggedised mobile and handheld radio terminals, vehicle-mounted repeaters for additional mobile coverage, and a DMR SmartOne central dispatching system, Endeavour Mining was able to safely secure communications for all mine employees. ■

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Advantech advances modular IoT gateway series

Advantech has unveiled the UNO-2271G V3, an advanced addition to its UNO-2000 modular IoT gateway series.

Powered by the Intel® Atom x7211RE processor, this compact gateway offers robust edge computing capabilities and flexible stackable expansion options, designed to meet the evolving demands of Industry 4.0 for real-time analytics and connectivity.

With dimensions of 100 x 70 x 40 mm, the UNO-2271G V3 features an innovative modular architecture that supports three stackable expansions for Power over Ethernet (PoE PD), COM ports, and iDoor modules. This design facilitates various mounting options, including DIN rail, rear DIN rail, stand, wall, and VESA, streamlining installation and maintenance while optimizing space in manufacturing environments.

Equipped with a dual-core Intel® Atom x7211RE processor, 8GB LPDDR5 RAM, and 64GB eMMC storage, the UNO-2271G V3 delivers powerful computing capabilities. It includes versatile I/O options such as two i226 LAN ports, one HDMI 1.4, one USB 3.2 Gen2, and one USB Type C, ensuring seamless integration with a wide range of industrial devices.

Additionally, the UNO-2271G V3 supports wireless networking through WiFi modules and an industry-standard B+M to E key converter interface, enabling LTE, 4G, and 5G connectivity for fast mobile networking. Its compatibility with Advantech's DeviceOn IoT platform allows for centralized device management and over-the-air updates, enhancing operational efficiency.

In manufacturing, the UNO-2271G V3 serves as an edge gateway that connects factory equipment to cloud services, facilitating real-time analytics and remote monitoring. It supports predictive maintenance and production optimization through comprehensive device management. Furthermore, in smart building applications, it excels in optimizing HVAC management and energy efficiency while providing real-time space utilization analysis.

End-to-end 5G Non-Terrestrial Network connectivity

Myriota has launched its groundbreaking 5G compliant Myriota HyperPulseTM network, operating on Nordic Semiconductor's low-power cellular IoT solutions. This collaboration delivers end-to-end 5G Non-Terrestrial Networks (NTN) standards-based connectivity solutions tailored for battery-constrained IoT applications.

HyperPulse stands out as the first solution of its kind powered by Viasat's dynamic leasing capability, enabling Myriota to adjust the network's performance dynamically based on the specific needs of customer devices deployed in the field. By utilizing Nordic Semiconductor's nRF9151, the smallest and lowest power System-in-Package (SiP) module for IoT deployments, device manufacturers can seamlessly upgrade their connectivity to Myriota HyperPulse.

"Myriota's connectivity, designed specifically for the Internet of Things, is changing the game globally, unlocking better outcomes through intelligence gathered from the field. This transformation is possible because traditional barriers related to satellite-based hardware and connectivity costs have significantly diminished. The industry is now able to deploy secure, low-power sensor devices at the necessary scale to have a real impact," said Ben Cade, CEO of Myriota.

The collaboration with Nordic Semiconductor enhances Myriota's existing IoT connectivity platform by introducing a 5G standards-based network that opens doors to a multitude of new applications.

"Myriota is an established player in the satellite market, and our partnership is bringing 5G NTN compliant solutions to the market, unlocking new possibilities for device makers," said Oyvind Birkenes, EVP of Nordic's Long Range Business Unit.

CMX500 AI Scripting Assistant changes the game for 5G

Rohde & Schwarz has introduced an innovative solution called the CMX500 AI Scripting Assistant, designed to automate test script generation and functional testing for mobile device manufacturers. This tool utilizes generative AI and natural language processing to help test engineers streamline their workflows, reduce errors, and accelerate the time-to-market for their products.

Test engineers often face significant challenges when it comes to manually generating test scripts, as this process typically requires them to compile inputs from various sources—including 3GPP specifications, XLAPI scripts, Python code, and the CMX500 user manual—under tight deadlines. The CMX500 AI Scripting Assistant addresses this issue by providing targeted, AI-driven support for scripting tasks.

The assistant benefits from exclusive access to proprietary data from Rohde & Schwarz and is specifically designed for domain applications such as R&D 5G NR protocol testing, application testing, and CMX instrument automation. This enables users to generate accurate XLAPI scripts more efficiently, saving time and effort. Additionally, the tool can extend existing scripts and offer explanations for each script, which is particularly useful for less experienced users who may be unfamiliar with the structure and logic of scripting.

Rohde & Schwarz has ensured that the CMX500 AI Scripting Assistant is optimized for performance by training it on relevant data from the company's expertise. The solution is further enhanced by automatic updates that keep it current, ensuring users always have access to the latest information and best practices in script generation.

Upgrading contextual awareness capabilities

Nokia has launched MX Context, a groundbreaking solution that harnesses sensor fusion technology to offer AI-powered contextual awareness for industrial enterprises.

This new tool is integrated into the Nokia Edge Compute and AI platform for industrial sites, enabling it to process vast quantities of data from various sources. MX Context provides real-time actionable insights and intelligent automation, aiming to enhance operational excellence and improve decision-making processes. Its unique offering in the market lies in its ability to deliver both situational and contextual awareness.

Leveraging sensor fusion technology, MX Context combines multimodal data from diverse sources to generate real-time, AI-powered insights tailored for Industry 4.0 use cases. The solution utilizes Nokia's on-premise edge industrial computing capabilities, specifically the MXIE and MX Grid solutions, for data processing, alongside the MXIE Data Lake for storing both structured and unstructured data for historical analysis and application data access via APIs.

MX Context features low-code visual development capabilities, allowing users to quickly create logical workflows and design dashboards with minimal coding expertise. It integrates seamlessly with Nokia MX Workmate, an advanced AI assistant that enables natural language interactions with connected workers. The MX Context solution is modular, allowing for the creation of use case-based contextual awareness solutions. The initial two MX Context suites focus on tracking and positioning as well as worker safety.

In terms of tracking and positioning, MX Context is noted as the first industry solution capable of ingesting and fusing data from multiple tracking technologies, including Bluetooth Angle-of-Arrival, video-based positioning, GPS from worker devices, and other third-party tracking technologies such as HERE HD GNSS and Nordic ID. This integration results in more precise and reliable positioning, ensuring continuity in tracking across mixed industrial environments to optimize asset utilization, inventory management, processes, and material flow.

For worker safety, MX Context processes and fuses diverse data types from Nokia's sensory solutions, including Nokia VPOD, device sensors (gyroscopes, accelerometers, microphones), and third-party applications. This real-time AI-based data fusion facilitates the first instances of situational awareness and contextual information, enabling the detection of potential accidents or incidents and facilitating effective responses, such as triggering alerts, notifying emergency services, or providing real-time guidance to workers.

AI streamlines telco operations

ZIRA Group's AI Telco Platform is a new cutting-edge solution designed to empower Communications Service Providers (CSPs) by transforming Business Support Systems (BSS) data into valuable insights.

The AI Telco Platform is a versatile tool that enables CSPs to extract predictive and actionable insights from BSS data, facilitating proactive decision-making. It offers customization to accommodate various telecom use cases, catering to the specific forecasting and business intelligence needs of CSPs. This platform allows for the delivery of tailored customer offerings based on real-time analytics and integrates smoothly with existing IT infrastructures and BSS solutions through APIs or database connections, enabling large-scale AI adoption.

Featuring predictive analytics, the platform combines forecasting capabilities with a generative AI agent that generates actionable insights across the organization. For wholesale operations, CSPs can utilize the platform to optimize routes, pricing, and traffic volumes in real-time, helping to protect profit margins, prevent service disruptions, and ensure a seamless customer experience. Additionally, the platform can accurately forecast supplier prices up to six months in advance. It has already garnered several industry awards for its positive impact on telecommunications operations and business processes.

While AI and machine learning are increasingly being adopted in telecom networks and infrastructures, there has been a lack of viable solutions specifically targeting the BSS layer. CSPs require access to data and insights that enable smarter, more responsive decision-making in a rapidly changing market environment. Traditional analytics tools often struggle with the complexities of real-time data, where even minor percentage changes can significantly affect wholesale revenues.

Zira has also outlined the platform's forecasting capabilities, which help CSPs manage capacity, pricing, and traffic fluctuations, thereby removing risks and uncertainties. By analyzing vast volumes of complex network and billing data, the platform supports informed decision-making and helps identify new business opportunities. ZIRA Group is actively collaborating with CSP customers on live projects to explore new use cases for the platform.

Look out for...

NB-IoT and NTN to transform connectivity

The integration of Narrowband Internet of Things (NB-IoT) with Non-Terrestrial Networks (NTN) is set to transform global connectivity, particularly in remote and underserved regions. By allowing IoT devices to communicate directly via satellites, this advancement ensures seamless coverage in areas where traditional terrestrial networks are either limited or entirely absent.

A significant breakthrough in this field occurred earlier this year when Mavenir and Terrestar Solutions Inc. successfully completed the industry's first Voice over NB-IoT (VoNB) call in NTN mode. Conducted over a 3GPP-standardized NTN S-band spectrum, the call utilized Sony's Altair ALT1250 module along with Mavenir's Open RAN and Converged Packet Core technologies. This achievement not only demonstrated the feasibility of integrating voice services over NB-IoT in NTN environments but also paved the way for broader adoption of satellite-enabled IoT solutions.

The future application of NB-IoT in NTN mode spans multiple industries, each benefiting from the ability to maintain reliable, low-bandwidth communication over vast distances. In agriculture and environmental monitoring, farmers can deploy IoT sensors in remote fields to track soil moisture, crop health, and weather conditions, while environmental agencies can use similar technology for wildlife tracking and early detection of forest fires. With satellite connectivity, these sensors remain operational regardless of terrestrial network limitations. In the logistics sector, global supply chains can use NB-IoT to track goods in real-time, even when they move through regions with poor cellular coverage.

Disaster response and emergency services also stand to benefit greatly. Terrestrial networks often fail during natural disasters, leaving affected regions disconnected. With NB-IoT over NTNs, emergency responders can maintain critical communication, improving coordination and resource allocation when it is needed most. Similarly, the maritime and aviation industries can leverage satellite-based NB-IoT for telemetry, safety updates, and operational data transmission, enhancing overall safety and efficiency.

The convergence of NB-IoT with NTN represents a major leap forward in global connectivity, making the concept of a truly ubiquitous IoT a reality.

Netmore Group expands into Brazil and South America with Everynet acquisition

IoT network operator Netmore Group has announced its strategic expansion into Brazil and the broader South American markets following the successful acquisition of Everynet, an operator specializing in neutral-host, low power wide area (LPWA) networks.

This expansion is expected to unlock new market opportunities for Netmore while simultaneously catering to the increasing demand for digital transformation across critical sectors such as utilities, agriculture, smart cities, and transportation and logistics.

As Netmore establishes a more substantial presence in the region, customers in Brazil and South America will gain access to enhanced, best-in-class low power wide area network (LPWAN) coverage, along with improved product offerings. The company's enhanced operations will focus on expanding LPWAN coverage areas through collaborations with existing and new infrastructure partners.

Additionally, Netmore plans to introduce its network-as-a-service (NaaS) and platform-as-a-service (PaaS) solutions, which will offer businesses flexible and scalable options for IoT connectivity and network deployment. This shift is designed to accommodate various businesses of all sizes and sectors, promoting a more integrated approach to IoT solutions.

The company's capabilities will also feature unique network deployment and densification options, offering SLA-backed, carrier-grade network services tailored for critical infrastructure and essential business applications.

With this expansion, Netmore Group aims to not only reinforce its market position but also catalyze the digital transformation journey across South America's critical sectors.

Telefónica to sell Colombian unit to Millicom for $400M

Spain's Telefónica has reached an agreement to sell its 67.5% stake in its Colombian unit to Millicom in Latin America, for $400 million.

This transaction has been anticipated for some time, with reports as early as July 2024 indicating that Telefónica had signed a non-binding agreement with Millicom to explore the potential deal.

Telefónica has indicated that this move aligns with its strategic intent to gradually reduce its exposure to Latin American markets. The company has been actively divesting from various Latin American operations, citing lower returns compared to capital costs. Instead, Telefónica aims to concentrate on its businesses in Spain, Brazil, the UK, and Germany.

Newly appointed Chief Executive Marc Murtra has stated that the company intends to complete a strategic review by the end of this year. Recent activities have included the sale of its Argentine unit last month, as well as reports of initiating the sale process for its units in Mexico and Peru earlier this month.

In addition to these divestitures, Telefónica still operates in Chile, Ecuador, Uruguay, and Venezuela. However, the exits from Argentina, Mexico, and Colombia substantially reduce its presence in Latin America, where it has also divested its operations in El Salvador and Costa Rica.

This strategic pivot underscores Telefónica's commitment to focus on regions with stronger growth prospects and improved returns, reflecting broader trends in the telecommunications industry as companies reassess their geographical portfolios.

Orange partners with Telesat for enhanced non-terrestrial connectivity

Orange has announced a multi-year partnership with Telesat to provide non-terrestrial connectivity services leveraging Telesat's fleet of low Earth orbit (LEO) satellites. As part of this deal, a Telesat Lightspeed Landing Station will be established at Orange's teleport facility in Bercenay-en-Othe, France.

The station will utilize Orange's existing ground infrastructure to connect with its point of presence in Paris through the Orange Wholesale International Private Line (IPL), thereby facilitating seamless integration of satellite connectivity into Orange's services.

Under this partnership, Orange has committed to integrating Telesat's Lightspeed LEO satellite services into its global connectivity offerings, aimed at businesses and telecom operators. The Telesat Lightspeed Carrier Ethernet services will enhance enterprise-class connectivity with features such as a Zero-Trust Security Architecture, providing real-time configuration and monitoring capabilities. This autonomy allows telecom operators to manage services dynamically, redirecting capacity as required without needing intervention from satellite operators.

Jazz to deploy solar power at 1,000 Pakistan sites

Veon's Jazz is partnering with Huawei to implement solar power technology at 1,000 of its mobile base station sites across Pakistan.

As part of this agreement, Jazz will utilize Huawei's iSolar technology. This solution has the potential to reduce energy costs by up to 96%.

Jazz CEO Aamir Ibrahim emphasized that the project will aid the company's transition to a sustainable telecommunications network infrastructure supported by green energy, aligning with its pledge to achieve carbon neutrality by 2050.

"We are committed to providing an optimal experience for our customers while minimizing our environmental impact," said Ibrahim. "The deployment of iSolar sites advances our sustainability journey, enabling us to deliver reliable connectivity powered by renewable energy to our customers."

In addition to the environmental and operational advantages, Jazz believes that the initial rollout of iSolar can serve as a scalable model for future expansions, providing a replicable framework for extended implementation.

Telespazio and ABS explore corporate connectivity with new C-band solutions

Telespazio and Agility Beyond Space (ABS) are taking their partnership to new heights by launching innovative managed C-band service solutions specifically designed for the Brazilian corporate market.

By combining Telespazio's robust ground infrastructure with ABS's extensive satellite capacity, this collaboration aims to deliver high-performance, customized connectivity tailored to meet the unique needs of enterprises.

In 2024 alone, the partnership has already made strides with several strategic projects, including a crucial air traffic control connectivity initiative and the upcoming launch of a teleport facility in Maricá, Brazil. With these advancements, Telespazio and ABS are set to broaden their capabilities, catering to businesses that require scalable and application-specific satellite solutions.

C-band connectivity projects often necessitate personalized services instead of one-size-fits-all offerings. This latest service commitment ensures dependable and adaptable connectivity, specifically designed to address enterprise and mission-critical requirements spanning various industries.

"We are excited to embark on this next chapter of our partnership with ABS, empowering businesses in Brazil with enhanced control over their satellite connectivity," said Marzio Laurenti, CEO of Telespazio. "By leveraging ABS's satellite capacity alongside our ground infrastructure, we are poised to deliver solutions that keep pace with the evolving demands of corporate customers."

"As ABS and Telespazio continue to refine our partnership, we remain dedicated to providing high-quality, adaptable satellite services that businesses can depend on. This collaboration guarantees that companies operating within Brazil have access to customized connectivity solutions tailored for enterprise applications, mission-critical operations, and network expansion," said Ramsey Khanfour, Chief Commercial Officer of ABS.

This latest initiative underscores the commitment of both Telespazio and ABS to innovation and customer-centric satellite solutions, further solidifying the growth of Brazil's corporate connectivity ecosystem.

Historic decline for telecom equipment revenues

Early findings from the Dell'Oro Group reveal a significant downturn in global telecom equipment revenues across six key categories — broadband access, microwave and optical transport, mobile core network (MCN), radio access network (RAN), and service provider (SP) router and switch.

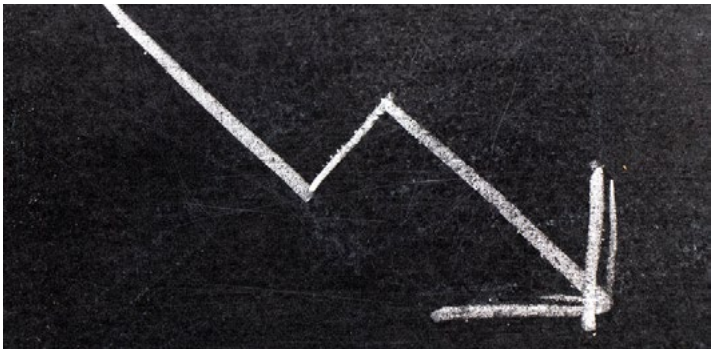
In 2024, these revenues dropped by 11% year-on-year, marking the largest annual decline in over two decades, with a similar decline of over 20% last recorded in 2002. Over the past two years, total equipment revenue has decreased by 14%.

This decline was observed across various telecom segments and was attributed to several factors including excess inventory, a challenging macroeconomic environment, and tough comparisons against 5G rollout periods. While the fourth quarter of 2024 saw growth in North America and Europe, the Middle East, and Africa (EMEA), which helped stabilize the market, demand remained weak in the Asia Pacific region, particularly in China.

The decline varied among the six telecom segments. Notably, optical transport, SP routers, and RAN experienced significant contractions, shrinking by a collective 14%. Microwave transport and MCN saw moderate declines in the low single digits, while revenues from broadband access remained relatively stable.

Regional trends indicated a mixed outlook in 2024. All five regions — North America, EMEA, Asia Pacific, China, and the Caribbean and Latin America (CALA) — experienced slow growth, yet the broader Asia Pacific region faced the steepest decline due to adverse conditions in China and other areas.

Analysts anticipate market conditions to stabilize in 2025, although they expect it will continue to be a difficult year for the telecom equipment sector. Projections suggest that global telecom equipment revenues across the six tracked sectors will likely remain flat in 2025.



PhilTower and DITO Telecommunity to boost country-wide infrastructure

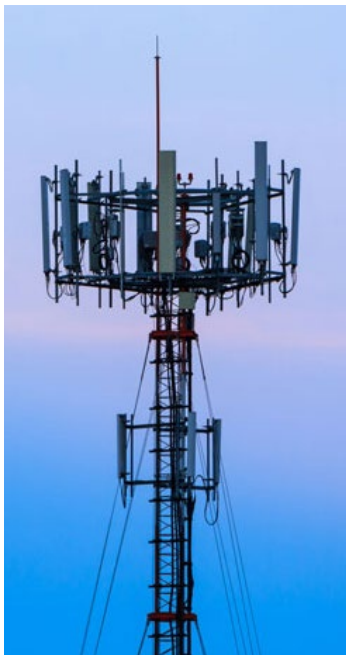
PhilTower MIDC and DITO Telecommunity Corporation have entered into a strategic agreement aimed at enhancing telecommunications infrastructure throughout the Philippines.

This partnership focuses on colocation management, designed to accelerate network expansion and improve digital accessibility on a national scale.

Under the terms of the memorandum of understanding (MoU), PhilTower MIDC will provide colocation management services for DITO's telecom infrastructure. This collaboration will streamline maintenance operations and allow third-party operators easier access, promoting a more efficient use of resources across the telecommunications sector.

"Our mission has always been to break barriers and provide Filipinos with world-class connectivity," said Ernesto R. Alberto, CEO of DITO Telecommunity Corporation.

PhilTower MIDC's President and CEO, Devid H. Gubiani, said that the partnership will open an additional 6,500 towers for sharing among mobile network operators (MNOs), significantly hastening the expansion of connectivity in the Philippines.



The collaboration is anticipated to accelerate digital transformation, particularly in underserved and remote areas, while also facilitating the adoption of emerging technologies. By enhancing network coverage, the partnership is poised to support sustainable development by reducing redundant infrastructure and aligning with the Department of Information and Communications Technology's goals of optimizing resources and minimizing environmental impact through shared infrastructure solutions.

Nokia and Canal+ Telecom to enhance FTTH in French Guiana and Guadeloupe

Canal+ Telecom, a subsidiary of Canal+ Group operating in Overseas Departments and Territories (DOM-TOM), will implement Nokia's Lightspan and Altiplano solutions to transform its fibre network in French Guiana and Guadeloupe.

This deployment aims to create a next-generation network that meets the increasing demand for capacity and enhances automation in Canal+ Telecom's network and service operations. It features Nokia's Lightspan Mini Optical Line Terminal (OLT) solution, which will accelerate the rollout of Fiber-to-the-Home (FTTH) services across the French Caribbean territories. Its compact design offers Canal+ Telecom a high-capacity, low-density fibre option, making it well-suited for island environments and areas with lower population density. Furthermore, Nokia's Lightspan solution enables Canal+ to future-proof its network, allowing for seamless upgrades to 25G PON technology when necessary.

In addition to the Lightspan OLT, Canal+ Telecom will utilize Nokia's Altiplano solution to enhance the management of its entire access network, achieving operational efficiencies and optimizing network performance. Altiplano's automation capabilities will enable Canal+ Telecom to swiftly detect network anomalies, anticipate service-affecting issues before they arise, and improve overall network utilization.

"As the first operator in the Caribbean to adopt Nokia's Altiplano platform, we are leading the charge in intelligent network automation that proactively anticipates and resolves issues. This ensures exceptional reliability and enhances the overall experience for our customers. We are excited to partner with Nokia as we accelerate digital transformation across the Caribbean," said Laurent Champouret, Head of Network and Fixed Access Engineering at Canal+ Telecom.

"For the people and businesses of French Guiana, Martinique, and Guadeloupe, our partnership with Canal+ Telecom represents a significant step towards a more connected future. Our mission is to provide smarter, more reliable, secure, and future-proof broadband networks for our customers and end users. This agreement is another milestone in our commitment to equipping our clients with innovative, fibre-based network solutions and broadband services," said Matthieu Bourguignon, Senior Vice-President of Network Infrastructure for Europe at Nokia.

This collaboration underscores Nokia's dedication to advancing telecommunications infrastructure in the Caribbean region, ensuring better connectivity and service quality for its communities.

SES teams up with Lynk Global to advance D2D satellite services

SES has announced a strategic partnership with Lynk Global to enhance the D2D segment through integrated services and will include SES providing Series B funding to support Lynk's growth.

Under the agreement, SES will offer a comprehensive suite of services, including its innovative MEO-Relay technology. This technology facilitates D2D providers in routing traffic between Low Earth Orbit (LEO) satellites and SES's Medium Earth Orbit (MEO) network, allowing for more efficient access to telecommunications gateways. SES asserts that this integration will enable the secure delivery of real-time data, reduce the capital expenditures associated with ground infrastructure, and expand the reach and resilience of D2D satellite constellations.

Additionally, Lynk will utilize SES's extensive global ground network through a network-as-a-service (NaaS) arrangement, which includes telemetry, tracking, command, and monitoring (TTC & M) services. This partnership will allow SES to act as a strategic channel partner for Lynk's D2D network, enabling SES customers to benefit from applications such as remote access, mission-critical first responder communications, secure government communications, and connectivity for offshore and automotive sectors.

The partnership will also involve joint efforts in developing Lynk's network architecture and satellite manufacturing in both the United States and Europe.

"This partnership gives SES exposure into the D2D segment and is a key part of our strategy to diversify into this nascent, high-growth segment. SES's multi-orbit network, particularly our MEO and ground infrastructure, will enhance the resilience, global reach, and innovation of Lynk's D2D network," said SES CEO Adel Al-Saleh.

Lynk Global's CEO Ramu Potarazu echoed the sentiment, highlighting that this long-term strategic collaboration will deeply integrate the networks of both companies,

enhancing Lynk's capabilities. He noted that with SES's infrastructure support, Lynk is better positioned to meet the needs of government, mobile network operator (MNO), and automotive D2D use cases.

Lynk Global has already secured regulatory approvals in over 30 countries and is actively deploying its services commercially through more than 50 MNO contracts, covering around 60 countries. These efforts are particularly focused on developing markets, where satellite connectivity is vital for extending access to remote and underserved areas.

O2's Call Defence technology cuts down scam calls

In November 2024, O2 (Virgin Media) implemented Hiya's innovative AI-powered scam detection service, dubbed 'Call Defence,' as a proactive measure to combat fraud and nuisance calls. Since its launch, the service has marked a remarkable impact, flagging over 150 million 'suspected' scam and spam calls, with numbers now surpassing 50 million per month.

This technology leverages Adaptive AI to analyse call number behaviour in real-time. By determining whether an incoming call may be a scam or spam, the service alerts customers before they answer. As a result, calls tagged as 'suspected scam' are now answered 42% less often and tend to be 89% shorter than unflagged calls, illustrating a significant reduction in engagement with potentially harmful calls.

The Call Defence technology has been automatically rolled out to Android users and iPhone (Apple) customers running the latest iOS v18 and above. Customers with older software versions may not be able to fully utilize the features of this service, making an update essential for complete protection.

"With more than 50 million calls suspected of being nuisance and scam calls now being flagged every month, we're empowering O2 customers in the fight against fraud, arming them with important information when deciding whether to pick up the phone," said Murray Mackenzie, Director of Fraud Prevention at VMO2.

This AI service forms part of O2's broader strategy to enhance customer safety, which includes blocking over 168 million scam texts in the past two years. Mackenzie urges customers to actively participate in this fight against fraud by reporting scam calls and texts through the free service via 7726, noting that each report helps refine their systems to better thwart scammers.

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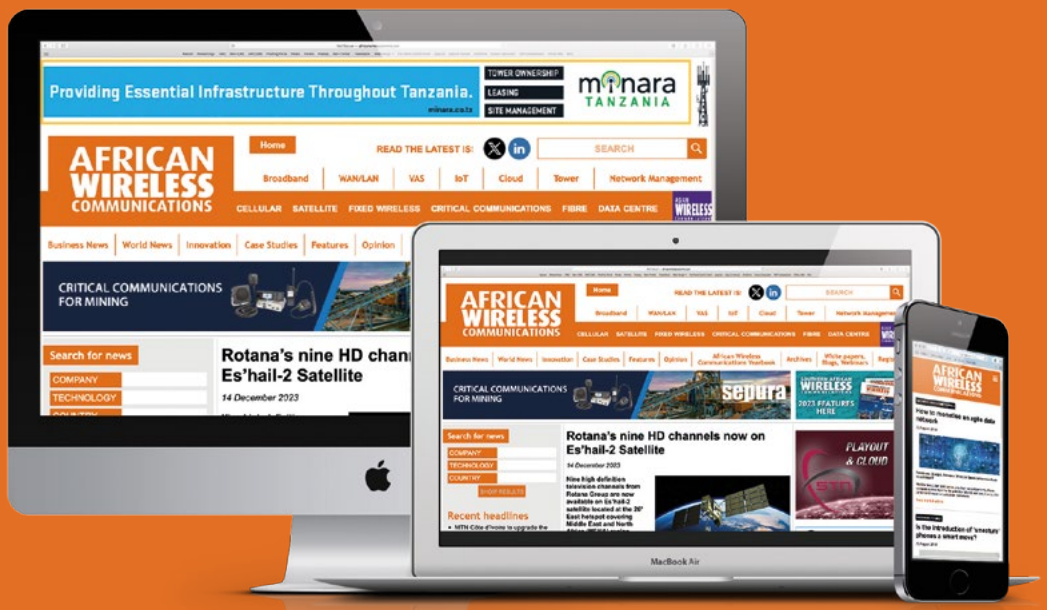

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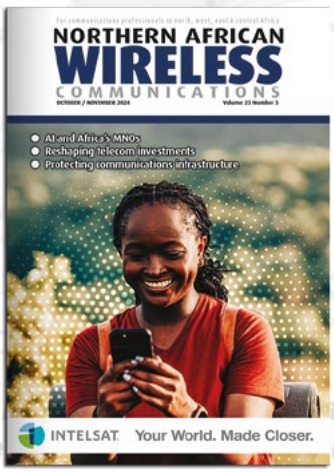

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