AFRICA TELECOM Review AFRIQUE
THE TELECOM INDUSTRY'S MEDIA PLATFORM
LA PLATE-FORME MEDIA DE L'INDUSTRIE TELECOM
telecomreviewafrica.com

SAFEGUARDING AFRICA'S DIGITAL FUTURE THROUGH SUBMARINE CABLE RESILIENCE

- Driving Connectivity and Competition with eSIM Adoption in Africa
- Shaping South Africa's Digital Economy Vision for 2030
- Leveraging Strategies for African Telcos to Enhance Value and Competitiveness

TELECOM Review GROUP

telecomreviewgroup.com

GLOBAL FOOTPRINT
REGIONAL INFLUENCE
DIGITAL REACH


TELECOM Review
THE TELECOM INDUSTRY'S MEDIA PLATFORM
telecomreview.com


TELECOM Review
ASIA PACIFIC
THE TELECOMS INDUSTRY MEDIA PLATFORM
telecomreviewasia.com


AFRICA
TELECOM Review
AFRIQUE
THE TELECOM INDUSTRY'S MEDIA PLATFORM
LA PLATE-FORME MEDIA DE L'INDUSTRIE TELECOM
telecomreviewafrica.com


TELECOM Review
AMERICAS
THE TELECOMS INDUSTRY MEDIA PLATFORM
telecomreviewamericas.com


تيليكوم ريفيو
منصة قطاع الاتصالات والتكنولوجيا
TELECOM Review
telecomreviewarabia.com


TELECOM Review
EUROPE
THE TELECOMS INDUSTRY MEDIA PLATFORM
telecomrevieweurope.com


TELECOM Review
virtual panels


TELECOM Review
TV
telecomreview.tv


SUMMIT
TELECOM Review
www.telecomreview.com/summit

AFRICA TELECOM Review AFRIQUE
THE TELECOM INDUSTRY'S MEDIA PLATFORM LA PLATE-FORME MEDIA DE L'INDUSTRIE TELECOM
telecomreviewafrica.com

The First Phase of Unified Charging Ports Begins in Saudi Arabia

Saudi authorities have announced the implementation of the first mandatory phase for unified charging ports for electronic devices in Saudi Arabia, effective January 1, 2025.

READ MORE

Your Next PC Will Be AI-Ready. Here's Why

By 2025, AI-enabled PCs are poised to transition from being a mere luxury to a necessity, accounting for an estimated 60% of total PC shipments.

READ MORE

Germany Advances Autonomous Driving with Innovative C-ITS Strategy

Germany's new autonomous driving strategy leverages C-ITS technology and public transport to lead innovation in connected mobility solutions.

READ MORE

Intelligent Reconfigurable Surfaces: A Next-Gen Element for Ultrafast 6G Connectivity

As demand for improved indoor wireless signals increases, communication devices equipped with intelligent reconfigurable surfaces (IRS) could enhance mobile coverage indoors, whilst also supporting new 6G applications.

READ MORE

AI's Next Breakthrough: Recognizing Human Emotions

Industry leaders like IBM, Microsoft, AWS, and Google are pioneering the integration of emotion artificial intelligence (AI) .

READ MORE

Water Facilities Urged to Secure Internet-Exposed HMIs

The increasing vulnerability of internet-exposed systems in the water and wastewater sector has put critical infrastructure at risk of cyberattacks, resulting in the Environmental Protection Agency (EPA) and CISA calling for immediate action to secure these systems.

READ MORE

Founder of Telecom Review Group
CEO of Trace Media International
Toni Eid
toni.eid@telecomreviewgroup.com

Chief Marketing Officer & Editor-in-Chief
Issam Eid
issam@telecomreviewgroup.com

Copy Editor
Mira Jabbour

Journalist
Pia-Maria El Kady
pia@tracemedia.info

Representative in Ivory Cost
Lacinan Ouattara
lacinan@tracemedia.info

Editorial Team
Christine Ziadeh,
Clarissa Garcia, Corrine Teng, Elvi Correos,
Jeff Seal, Jessica Bayley, Jonathan Pradhan,
Marielena Geagea, Monika Jeleniak,
Novie Nuñez, Pia-Maria El Kady, Sherizze Accot

Director of Content for Media & Events
Christine Ziadeh
christine@telecomreviewgroup.com

Advertising Enquiries
Ershad – Sales Director – Group
ershad@telecomreviewgroup.com

Operations Director – Group
Anna Chumak

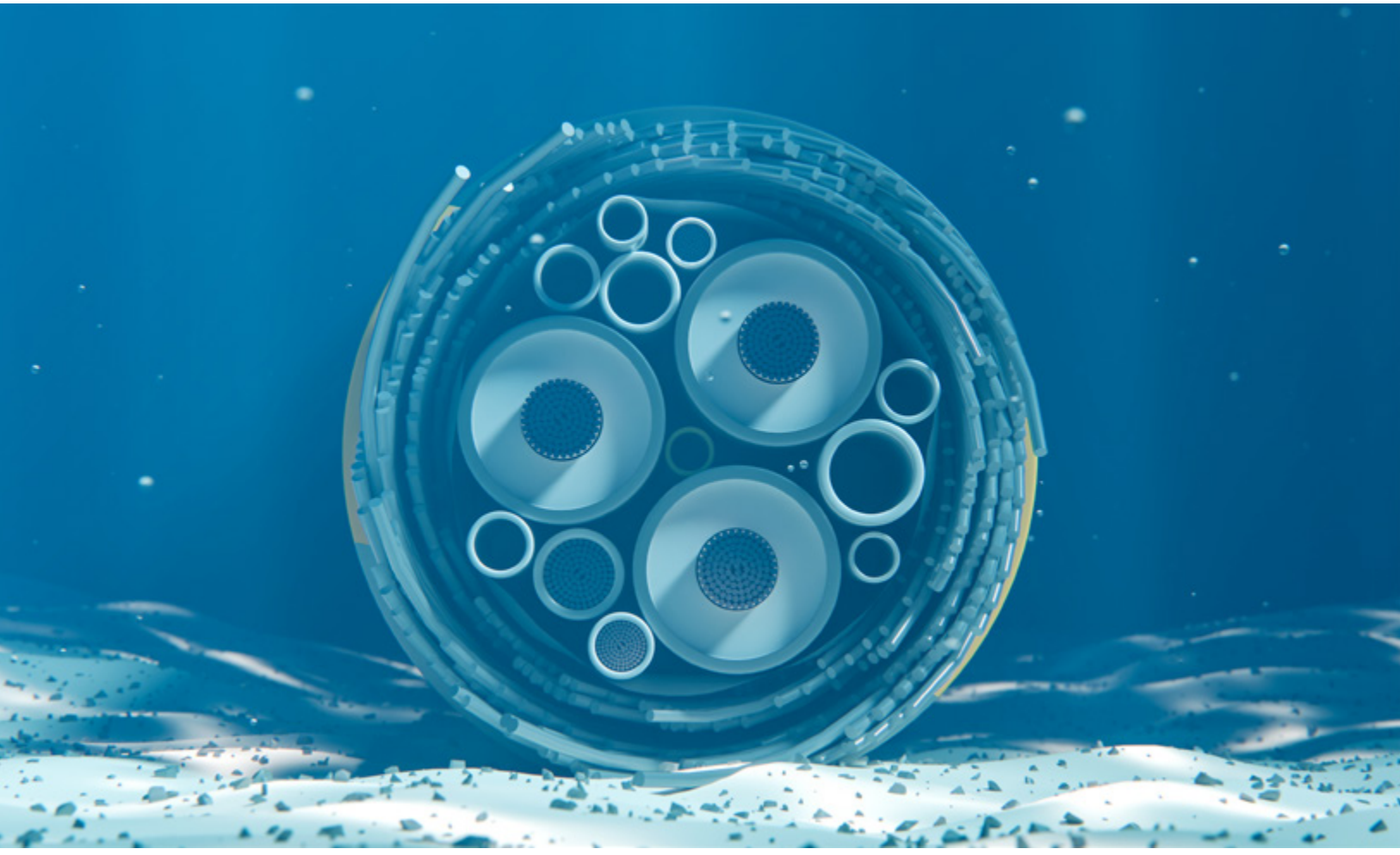
Graphic Designer
Vanessa Haber

News
Provided in cooperation with AFP,
the global news agency

Published by

Trace Media Ltd.
Zouk Mikael, LEBANON
Kaslik Sea Side Road,
Badawi Group Building, 4th Floor,
P.O. Box 90-2113, Jdeidet el Metn
Tel. +961 9 211741

- Year 15 - Issue 109



Safeguarding Africa's Digital Future through Submarine Cable Resilience

As Africa continues to embrace the digital revolution, the reliance on global digital infrastructure has grown immensely. The continent's digital future depends heavily on powerful and resilient connectivity solutions, with submarine cables playing a crucial role in this transformation. These cables, which run beneath the oceans to link continents, are the lifeblood of modern communications, enabling high-speed internet, voice, and data exchanges between Africa and the rest of the world. Ensuring the resilience of these cables is now more critical than ever, as the continent seeks to enhance its digital economy, promote innovation, and improve access to essential services such as healthcare, education, and finance.

The Role of Submarine Cables in Africa's Digital Connectivity

Submarine cables are the backbone of global telecommunications, transmitting approximately 99% of international data traffic. In Africa, these cables connect the continent to the rest of the world, facilitating communication, e-commerce, and digital services. Without them, the growth of the African digital economy would be stunted, and access to vital resources such as remote healthcare or online education would remain limited.

Historically, Africa has faced significant challenges in terms of digital connectivity. Many countries were isolated from global communication networks, relying on costly satellite links that were often unreliable and offered lower speeds. However, with the advent of new submarine cables, such as the Africa Coast to Europe (ACE) cable, the East African Submarine Cable System (EASSy), and the South Atlantic Cable System (SACS), Africa has seen a dramatic improvement in its international internet connectivity. These cables have lowered costs, improved bandwidth, and made it possible for Africa's tech ecosystem to flourish.

Submarine cables provide faster, more reliable, and cost-effective internet connectivity compared to satellite communication, which has higher latency and limited bandwidth. The introduction of these cables has led to an increase in data availability, enabling businesses, governments, and individuals to access digital tools and services that were once out of reach. The resulting digital transformation is facilitating economic growth, job creation, and improving the quality of life across the continent.

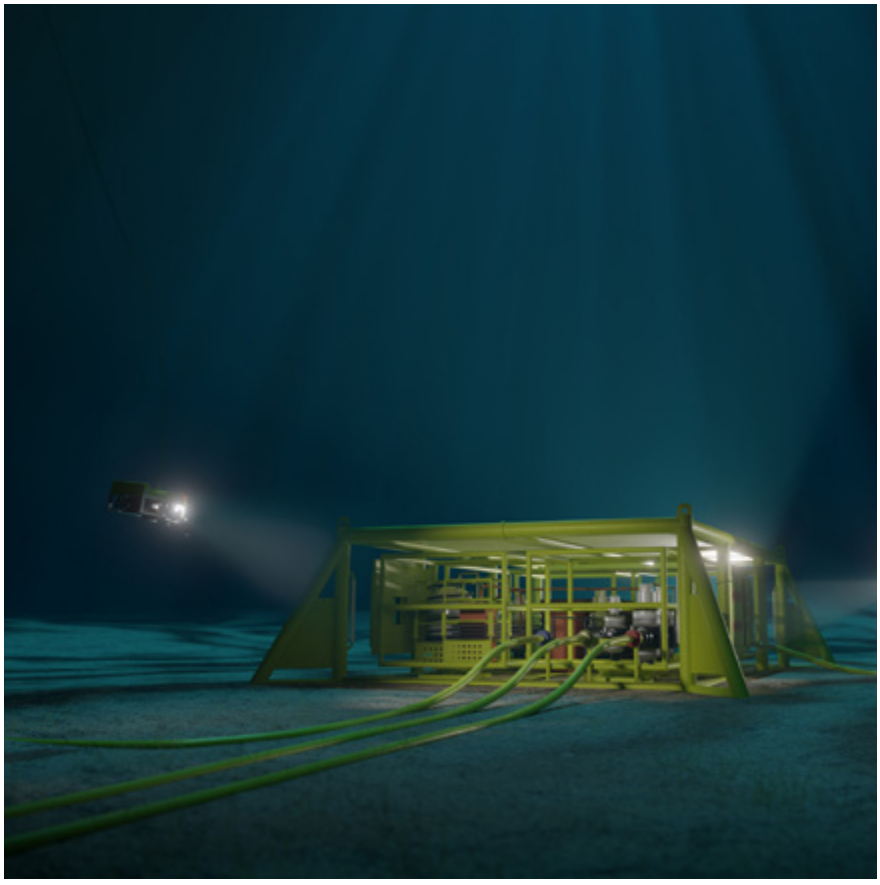
Challenges to Submarine Cable Resilience in Africa

Despite the significant benefits, Africa's resilient submarine cable infrastructure faces several challenges. Physical vulnerability of these cables is a major issue. Submarine cables, which are typically laid on the ocean floor, are prone to damage from various factors, including natural events like earthquakes and undersea landslides, as well as human activities such as fishing, anchoring, and shipping traffic. While cables are designed with protective layers, disruptions remain a possibility, and damage to cables can result in significant service outages, affecting entire regions.

For example, in 2008, the global submarine cable network was severely impacted by a series of cable cuts off the coast of Egypt, which caused widespread outages and highlighted the vulnerability of the infrastructure. Africa was hit particularly hard by these disruptions, as many of its countries depended on a limited number of cables for international connectivity.

Furthermore, geopolitical risks and conflicts in the regions where cables land can also threaten the resilience of submarine cable infrastructure. Political instability, civil unrest, and security risks near cable landing stations can impede maintenance activities and disrupt connectivity. In some cases, tensions between countries have led to concerns about the security of submarine cables, with nations worrying that critical infrastructure might be targeted in the event of a conflict.

Finally, climate change poses an emerging risk to the resilience of submarine cables. Rising sea levels,



increased storm activity, and changing ocean currents could affect the integrity of cables laid on the ocean floor. As global warming accelerates, it is crucial to consider the long-term impact of environmental changes on submarine cable infrastructure.

> To ensure Africa's digital future is protected, it is essential to prioritize the resilience of submarine cable infrastructure

Strengthening Submarine Cable Resilience

To ensure Africa's digital future is protected, it is essential to prioritize the resilience of submarine cable infrastructure. This requires a multi-faceted approach involving technological, policy, and collaborative solutions.

1. Advanced Technology for Cable Protection

Investing in technology to improve the durability and protection of submarine cables is key to mitigating risks. Advances in cable design, including the use of more durable materials, can help safeguard cables from damage caused by fishing activities, anchor dragging, and other human-induced factors.

For example, cables with reinforced armoring, which are more resistant to physical stress, can help reduce the impact of these risks.

Additionally, innovative monitoring and early detection systems can be deployed to identify cable faults as soon as they occur. These systems use real-time data to detect changes in the cable's physical properties, allowing for quicker intervention and repairs before significant damage happens.

Another potential solution lies in the development of more resilient cable routes. By strategically planning cable routes that avoid areas prone to natural hazards or geopolitical tensions, the risk of cable damage can be minimized. For instance, cables could be laid in deeper waters or along less trafficked shipping lanes, where the risk of physical damage is lower.

2. Diversification of Connectivity Routes

Given the importance of submarine cables to Africa's digital economy, diversification of cable routes is critical to ensuring resilience. Over-reliance on a few cables or routes exposes the continent to significant risks, as any disruption to a single cable can cause widespread outages. By investing in more diverse cable systems and improving interconnections, Africa can ensure a more stable and reliable internet connection.

The establishment of redundant cables, which provide backup routes in case of failure, is crucial. Multiple cable routes linking different parts of Africa to the global network can reduce the impact of any single point of failure. Projects like the 2Africa cable, which connects 33 countries in Africa, Europe, and the Middle East, are important steps in creating a more resilient network.

3. Collaboration Among Stakeholders

The resilience of submarine cables depends not only on technological advancements but also on the collaboration between governments, businesses, and international organizations. Governments

must create favorable regulatory environments that encourage investment in cable infrastructure while making sure that public policies support the development of redundant, secure, and resilient networks.

Public-private partnerships (PPPs) are key to improving submarine cable resilience in Africa. By working together, governments and private telecom operators can pool resources, share expertise, and align strategies to improve infrastructure and respond more effectively to disruptions. For example, regional collaborations such as the African Union's efforts to build a unified digital market could help strengthen the collective resilience of the continent's submarine cable systems.

4. Investing in Maintenance and Upgrades

Submarine cables require continuous maintenance and periodic upgrades to ensure their reliability. Regular maintenance activities, such as cable repairs, inspections, and equipment upgrades, must be prioritized to prevent long-term service interruptions. In addition, new cable systems should be designed with scalability in mind, securing their ability to accommodate growing bandwidth demands as the continent's digital economy expands.

Maintaining a skilled workforce capable of handling these tasks is also essential. Investing in training local technicians and engineers will help guarantee that Africa has the human capital needed to address infrastructure challenges and maintain its digital networks.

Towards a Resilient Future

As Africa continues to develop its digital economy, safeguarding the continent's submarine cable infrastructure is paramount. Submarine cables are the backbone of the continent's connectivity and digital transformation, and their resilience is key to unlocking opportunities for growth, innovation, and improved quality of life.

By leveraging advanced technologies, diversifying connectivity routes, encouraging collaboration, and investing in ongoing maintenance, Africa can build a more resilient digital future. Submarine cables will continue to play an indispensable role in bridging the digital divide and connecting the continent to the global economy. The success of these efforts will ultimately depend on the continent's ability to proactively address challenges and safeguard the infrastructure that underpins its digital future. TR

Rajiv Aggarwal, Head of Sales, Sub-Saharan Africa, Cloud & Network Services, Nokia

Shaping Sub-Saharan Africa's Telecom Future: Insights from Nokia's Rajiv Aggarwal

As we step into 2025, the telecom landscape in Sub-Saharan Africa presents both significant opportunities and challenges. In an exclusive interview with Telecom Review, Rajiv Aggarwal, Head of Sales, Sub-Saharan Africa, Cloud & Network Services at Nokia, reflects on key takeaways from 2024, the growing role of automation and AI, the escalating importance of security, and the trends set to shape the telecom industry in 2025. His insights offer a roadmap for navigating this rapidly evolving market.

We're at the start of 2025. What are some of your key observations from 2024?

It is indeed amazing how quickly time flies by! 2024—in all manners—was a remarkable year for our Cloud & Network Services team in Sub-Saharan Africa. Communication Service Providers (CSPs) in this part of the continent were primarily focused on expanding their networks, growing their capacity and creating value-added services for their subscribers.

One of my main observations was the enhanced focus among our customers on sustainability measures to reduce their carbon footprint and improve their handprint. This has led to engaging discussions on moving the needle towards a carbon-neutral business environment.

Another interesting conversation has been on security, notably cybersecurity, as the increasing number of cybercrimes across the world has heightened concerns about maintaining operational continuity of voice and data networks, protecting sensitive customer data, and defending against large-scale DDoS attacks.

Lastly, the growing influence of automation, particularly Generative AI (or GenAI), is becoming more apparent. CSPs are getting quite inquisitive about its applications in the Telco World and the impact it could have on getting new services to the market more quickly and efficiently.

What are the three biggest challenges that you face in your region?

There are plenty of challenges in the Sub-Saharan region. The biggest one is probably currency devaluation, which is leading to extreme inflation.This, in turn, has impacted the ability of our customers to suitably modernize their networks, keep pace with the growth in network traffic, and invest in new solutions to help them meet their business needs.

The second one is the need for CSPs to manage their operational costs and while simultaneously improving overall efficiency to give their customers the best possible services at the best prices. This sometimes leads to prioritization of expanding capacity and coverage over incorporating automation into their operations.

The third big challenge is managing subscriber churn while finding new avenues for revenue growth. In a price-sensitive market where services offered are roughly standardized, subscribers tend to get drawn to price plans that are more budget-friendly. So CSPs need to ensure that they can deliver new services to their customers as well

as better network quality to retain customers and maintain loyalty.

Have you seen an increase in the role of automation with your key customers in Sub-Saharan Africa, and do you see a role for AI in the future?
There is definately a growing interest in automation within our Sub-Saharan Africa customer base, and many are keen to understand how they can use automation to influence their primary business drivers. They have pointed out that improving customer experience and enabling new business models are the main incentives for introducing network automation. They recognize the need to differentiate their services and reduce costs, and automation will enable them to be more competitive. Overall, the level of automation in end-to-end services is still relatively low.

Having said that, CSPs are still in the early stages of network automation and the overall transformation that it brings. Network optimization and equipment configuration are partially automated through predefined rules, while service fulfilment and fault/performance management are the first to reach higher levels of autonomy.

There are challenges too; interoperability with current networks and integration with existing systems are telcos' most significant concerns when trying to automate. Additionally, there is a skills gap in the CSP workforce for implementing and managing automated systems. Our view is that CSPs should define a clear strategy for autonomous networks and create roadmaps covering the whole journey. Experimenting with different solutions and methods can help to find the right approach for each organization.

Security is a hot topic among many governments in Africa, and the number of security threats are growing by the day. How can Nokia help in this situation?
Security has indeed become a major concern in every single industry, not just the telco industry. Every company has a brand equity to maintain and security breaches, especially highly public ones, which tend to deteriorate brand loyalty and trust. This is compounded by the rapid expansion of cloud, webscale, and distributed application architectures, creating a larger surface for potential security breaches. As complexity grows, traditional security approaches struggle to keep pace with modern threats.

For CSPs, traditional IT security is not enough. They need telco security because the scope, focus, features, and challenges are very different. Telco cybersecurity is dedicated to protecting the entire telecommunications infrastructure and prioritizing uninterrupted service availability. Its top priorities are maintaining operational continuity of voice and data networks, protecting sensitive customer data, and defending against large-scale DDoS attacks.

In addition to having distinct security priorities, telco network security demands a specialized skill set and compliance with specific regulatory requirements. Professionals in this field need expertise in telco network topology and communication protocols. They should also adhere to 3GPP standards, GSMA guidelines, and various country-specific regulations.

Additionally, the emergence of quantum security, particularly post-quantum cryptography (PQC), marks a critical milestone in preparing our digital infrastructures for the quantum computing era. As quantum computers have the potential to break current encryption methods, PQC algorithms are being developed to ensure that our encryption standards remain secure against these future threats.

Nokia has been helping its customers by bringing deep telco security expertise in measuring CSPs' security preparedness and designing a plan to keep their network secure. Our end-to-end security products portfolio, enhanced with GenAI, includes use-case driven technologies and is designed with real-world applications in mind. Our Managed Security Services not only offer Managed Detection and Response (MDR), but also provide a customized suite of value-added telco security services tailored to protect both operational technology (telco security) and the IT environment of CSPs and verticals.

Looking at 2025, what are the top three trends that you expect to see in your market?
In 2025, I expect AI-based automation to take center stage. CSPs will look to introduce GenAI into their Telco AI strategy, which will be a game-changer. CSPs are actively engaging in internal discussions at an executive level to define an AI-centric vision that aligns with business cases related to cost savings and performance efficiency. This will not only enable them to speed up knowledge discovery and content generation, but will also allow them to apply it to a wide range of tasks like alarm intelligence, ticket resolution, network security, network planning, and service management automation.

The other trend is related to monetization of CSPs' investments, and the API economy is becoming a reality. Operators can create new business models by exposing advanced 5G capabilities through standardized APIs, thereby offering different services based on factors like quality of service or network resources consumed, leading to performance-based monetization. Our innovative Network as Code platform makes network complexities simple by abstracting them and exposing developer-friendly interfaces. These interfaces allow developers touse applications seamlessly across multiple public and private networks.

Lastly, cybersecurity will undergo a revolutionary transformation, driven by new technologies and regulatory advancements that are reshaping the way critical infrastructure providers need to protect digital assets. One of the most significant developments is the integration of generative AI (GenAI) into security frameworks. GenAI is transforming threat detection and response by enabling systems to identify complex patterns and anomalies in real-time, enhancing our ability to predict and mitigate cyber threats with accuracy. This advancement in AI-driven cybersecurity is complemented by a global tightening of government regulations, which are setting high benchmarks for data protection and network security. TR

Gilles Vaqué, President and Founding Partner of PMP Strategy

Gilles Vaqué Demystifies Network Innovation, Market Expansion, and Sustainability

In an exclusive interview at the 18th edition of the Telecom Review Leaders' Summit, Gilles Vaqué, President and Founding Partner of PMP Strategy, shared his expert insights on how PMP Strategy is helping telecom companies navigate the complexities of network innovation, market expansion, and sustainability.

Gilles Vaqué discussed the key trends shaping the telecom industry, the critical transformations operators must undertake in the next three-to-five years, and the company's commitment to driving growth and operational excellence for its clients in the ever-evolving digital landscape.

How does PMP Strategy help telecom companies address key challenges like network innovation, market expansion, and sustainability?

PMP Strategy is a strategy consulting firm operating in many countries. This specificity ensures that more than 50% of our business is related to telco and tech, so we are experts in this sector. The ability to help operators get maximum value out of these new businesses is one of the key issues we are working on with several operators and telcos.

This specificity is also critical for sharing all the best practices we see in the different countries, thanks to our offices worldwide. The ability to be 'on-the-ground' to help telco companies as a true partner, enabling them to gain and catch the value of this new market and path of growth, is part of our DNA at PMP Strategy.

With technologies like 5G, AI, and IoT transforming the telecom industry, what advice does PMP Strategy have for telecom companies to remain competitive?

AI, 5G, and IoT are good growth paths for operators. As you know, in some regions, for instance, in Europe, there is no more growth for telcos and the telco sector. In others, such as North America and the GCC region, there is still huge growth potential in terms of connectivity, but the ability to capture all these new markets is key for all the companies.

We see a lot of potential in all things related to 'beyond the core' in both the B2B and B2C markets. On the B2B side, the ability to become a champion in ICT is key. In relation to this, cloud and cybersecurity is key for operators. It's an enormous market with huge, substantial worldwide players, and the ability to gain value is key for them. In the B2C market, the ability to become a payment, banking, and real marketplace player (not only a digital player) is important.

Operators have many, many, fields for growth, and that, I think, is key for them. For PMP Strategy, we have a lot of expertise in each of these sectors thanks to our many SME experts. We also know the capabilities and new business models very well.

To become a champion is not only to add a service or product to the roadmap you already have; it's about defining a strategy to build the capabilities, review the organization, and build the ecosystem. This is not the same business model as a telco model. The ability to implement operationally and reap the results of this growth in terms of P&L, is how we can help all telcos gain value in their P&L.

What key trends will shape the telecom industry in the next three-to-five years?

In the next three-to-five years, telco operators and companies will face two main issues and two main stakes. Therefore, they must be able to make two key transformations.

In terms of the core model, they must become lean, efficient, customer-oriented, and have a high sustainability target. They must revisit *all* their models. For instance, on the IT side, they need to transform legacy IT into smart IT that is very lean, reactive, and digital. In terms of customer care, they need to ask, 'How can I improve the NPS and use AI to improve my relationship with my customer?' as it's a key issue. On the network side, identifying how to build an intelligent network and drive and steer this network to get more value from the infrastructure and the network is key. So, there are several transformations the operator can apply to the core model in the coming year.

In parallel, it is crucial to leverage the full potential of ICT across various areas, such as cybersecurity, digital marketplaces, payment systems, and banking. This will enable active participation in multiple verticals, such as healthcare and education. There's a new path for growth, and telcos must adapt their models to create a new joint venture (JV), for instance, a new sub-company, to achieve their full value. They must also be able to manage both models.

I think the key champions in the future will be all the telcos with the ability to transform their core model and, in parallel, become champions in these new markets. TR

To become a champion is not only to add a service or product to the roadmap you already have; it's about defining a strategy to build the capabilities, review the organization, and build the ecosystem

Togo's Regulator Slashes Wholesale Telecom Prices by 60%

The Regulatory Authority has established wholesale price ceilings for the 2025 financial year, based on cost audits of Togocom and MOOV Africa Togo. This includes a significant 60% reduction in the monthly rental ceiling for dark optical fiber, now set at 30 CFA francs per linear meter, down from 75 CFA francs.

The initiative promotes affordable, fair access to transmission infrastructure, accelerating broadband deployment in underserved areas, improving service availability, and increasing competition to lower retail prices.

This measure, combined with regulations on infrastructure sharing, strengthens market openness, transparency, and supports the government's high-speed connectivity initiatives. The Regulatory Authority urges operators to comply and expedite broadband coverage nationwide.

Angola and France Secure €225 Million for Satellite and Infrastructure Projects

Finance Minister Vera Daves de Sousa has signed major financing agreements to drive Angola's technological advancements and infrastructure development.

The agreements, signed with French financial institution Société Générale, allocate €35,268,507 and €189,988,694—totaling €225,257,201—for the design, manufacturing, and launch of an Earth Observation Satellite System. This ambitious project, carried out in partnership with European aerospace leader AIRBUS, includes the construction, launch, and in-orbit installation of the satellite, marking a significant milestone in Angola's space capabilities.

In addition to the satellite financing, the Minister signed two technical instruments to drive further advancements: Phase 2 of the National Meteorological Service Modernization Project, which aims to enhance the national seismology network and services vital for aviation, agriculture, the oil and gas industry, and the armed forces; and the Rehabilitation and Expansion Project of the Luanda Medicine Quality Control Laboratory, focusing on modernizing the facility, expanding its operations, and equipping it with cutting-edge technology.

These agreements were finalized during the Angola-France Economic Forum, which marked the conclusion of the President's state visit, reinforcing bilateral cooperation and paving the way for Angola's sustainable growth and innovation.

M-PESA's Users Mark a Milestone in Advancing Financial Inclusion in Kenya

Safaricom's mobile money platform M-PESA has reached 34 million subscribers, signifying the telco's commitment to enhancing the financial health and wellness of individuals and businesses across the continent.

Over the years, M-PESA has evolved beyond payments and transactions to a financial ecosystem offering credit, savings, investment solutions, wealth management, insurance solutions and a host of other financial services to meet the evolving needs of customers, enterprises, and the public sector.

With a vast network of over 300,000 agents nationwide, M-PESA ensures that even remote areas have access to financial services, significantly contributing to Kenya's economic growth.

Additionally, the platform supports over 1.5M micro, small, medium, and large enterprises through its merchant payment options. Most recently, Safaricom acquired an insurance intermediary license and partneredwith various insurance providers to offer comprehensive insurance solutions to its customers via M-PESA.

In October 2024, Safaricom celebrated its 24th anniversary, launching a yearlong celebration leading to its silver jubilee. Launched on the 9th November, the Sambaza Furaha [na] Safaricom Caravan is in its 4th regional tour in Nairobi following a successful run in Rift Valley, Mountain, and Greater Western regions. The Caravan not only brings Christmas cheer and rewards to customers but also solves customer issues contributing to its immense success.

Safaricom's CEO Dr. Peter Ndegwa expressed his excitement on this achievement, stating, "We are immensely proud to reach 34M M-PESA customers in Kenya. This accomplishment underscores our dedication to delivering frictionless, reliable and secure financial services to our customers. This milestone, a show of great trust by our customers, serves as motivation to keep innovating and delivering value to our customers."

Through strategic partnerships with other institutions, M-PESA has broadened its reach and enhanced its value proposition. The Daraja platform allows businesses to seamlessly secure integrations of their websites, mobile apps, and point-of-sale systems to M-PESA through Application Programming Interfaces (APIs). This has accelerated innovation, creating a thriving developer community of over 90k and supporting over 40k integrations.

Safaricom continues to innovate and expand its financial services offerings, advancing financial inclusion and transforming the lives of its customers and the community.

ITU and Global Organizations Work to Close the 'AI Skills Gap' through Education

The AI Skills Coalition, an initiative by the International Telecommunication Union (ITU), aims to bridge the global AI skills gap and ensure equitable access to AI education. Founding contributors include AWS, Microsoft, and Cognizant. Announced at Davos, the coalition will provide free and affordable training in generative AI, machine learning, and AI for sustainable development, targeting underserved communities, including women, youth, and persons with disabilities.

Partnering with UNDP, it will deliver AI capacity-building programs across 170 countries. The platform, launching in March 2025, will offer self-paced courses, workshops, and certifications, focusing on AI governance and ethics for developing nations. This effort supports the UN's Global Digital Compact to promote inclusive participation in the AI revolution.

Transforming Telecom Operations with Network Cloudification in Africa

Africa's telecommunications landscape is rapidly evolving, driven by the increasing demand for advanced services, the need for greater efficiency, and the rise of digital transformation. One of the most significant advancements in recent years is network cloudification, which leverages cloud computing to enhance the scalability, flexibility, and performance of telecom operations. As Africa continues to bridge the digital divide, cloudification is playing a critical role in enabling operators to scale operations, optimize resources, and deliver seamless connectivity across the continent.

The Shift Towards Network Cloudification

Historically, telecom networks depended on physical infrastructure and hardware, limiting scalability, flexibility, and innovation. However, with the adoption of cloud technologies, telecom operators are transitioning to a more agile, scalable, and efficient approach to managing their networks. Network cloudification involves migrating essential elements of the network—such as core functions, network functions virtualization (NFV), and software-defined networking (SDN)—into cloud environments. This transition not only improves operational efficiency but also supports the rapid deployment of new services.

Benefits of Cloudification in Telecom Operations

Cloudification in telecom operations offers numerous benefits, including increased scalability, enhanced efficiency, improved flexibility, and seamless integration of advanced technologies for optimized performance and innovation.

1. Scalability and Flexibility

One of the most significant advantages of network cloudification is its ability to scale telecom operations based on demand. Africa's diverse and rapidly growing population creates varying connectivity needs across regions. By leveraging cloud-based infrastructure, telecom operators can efficiently manage resources and scale their networks to meet growing demand, whether in urban centers or remote, underserved areas.

2. Cost Efficiency

Physical infrastructure can be costly to maintain and upgrade. With cloudification, telecom operators can optimize costs by shifting to a pay-as-you-go model, reducing capital expenditure (CAPEX) and operational expenditure (OPEX). Moreover, the centralization of network management in cloud environments allows operators to streamline maintenance and updates, ensuring consistent performance across their networks.

3. Enhanced Performance and Reliability

Cloud-based networks offer superior performance and reliability by enabling real-time management and monitoring. Telecom operators can ensure consistent service quality through dynamic resource allocation, reduced latency, and improved fault tolerance. This is especially beneficial for critical services like mobile broadband, IoT, and remote healthcare, which are gaining traction across Africa.

4. Innovation and Service Differentiation

Network cloudification empowers operators to quickly introduce new services and applications. By integrating AI, big data analytics, and other advanced technologies into their cloud infrastructure, telecom companies can enhance customer experience and develop innovative solutions tailored to local needs. This fosters competitive differentiation and positions operators as leaders in digital services.

Addressing Challenges in Network Cloudification

While network cloudification presents numerous opportunities, it also comes with challenges that must be addressed:

1. Infrastructure Readiness

In many regions across Africa, digital infrastructure may still be underdeveloped. Limited access to reliable internet, power, and high-speed networks can hinder the seamless adoption of cloud technologies. Telecom operators must collaborate with governments, technology partners, and local communities to bridge these gaps through investments in infrastructure development.

2. Cybersecurity and Data Privacy

Security is a critical concern when migrating networks to the cloud. Ensuring powerful cybersecurity measures and data privacy compliance is essential to protect sensitive user information from cyber threats. Telecom operators should adopt advanced security protocols and partner with cloud providers that offer secure, compliant solutions.

3. Skilled Workforce and Training

Transitioning to a cloud-based network requires a shift in skills and expertise. Telecom operators must invest in training programs for their workforce to ensure they are equipped to manage and optimize cloud environments. Additionally, partnerships with educational institutions and technology providers can help build a skilled talent pool to meet the growing demands of cloudification.

Success Stories Across Africa

Several African telecom operators have already embraced cloudification to drive growth and innovation. For example, MTN South Africa has adopted cloud solutions to enhance its 5G rollout and improve network performance. Similarly, Vodacom Tanzania has leveraged cloud technologies to offer scalable and reliable connectivity in rural areas, supporting government initiatives for digital inclusion.

In West Africa, Airtel Africa has successfully migrated key operations to the cloud, enabling efficient network management and the seamless rollout of mobile money and digital services across multiple markets.

Network cloudification is transforming Africa's telecom landscape, offering scalability, cost efficiency, and innovation opportunities previously unattainable with traditional networks. As operators continue to embrace this shift, collaboration, infrastructure development, and a focus on security and talent development will be essential to ensure a smooth transition. By leveraging the power of cloud technology, African telecom operators are well-positioned to drive connectivity and digital transformation, bridging the gap between urban and rural areas and paving the way for a more connected, inclusive future. TR

Empowering Innovation with Localized LLMs in Africa

In recent years, the rapid advancement of artificial intelligence (AI) has transformed industries worldwide. Among the most groundbreaking developments are large language models (LLMs), such as OpenAI's GPT and Google's Bard. While these models have shown immense potential, their effectiveness often falls short when addressing region-specific challenges. In Africa, the rise of localized LLMs is bridging this gap and unlocking new opportunities for innovation, economic development, and societal transformation.

The Case for Localization

Africa's diverse linguistic and cultural landscape is unparalleled. With over 2,000 languages and varied socio-economic contexts, generic AI models struggle to fully understand and address local needs. Localized LLMs, tailored to African languages and cultural nuances, provide a solution by delivering relevant and meaningful outputs.

For example, in multilingual countries like South Africa, Nigeria, or Kenya, localized LLMs can seamlessly switch between languages such as Zulu, Yoruba, Swahili, and English. This inclusivity ensures that AI tools are accessible to diverse populations. By training models on local datasets, these LLMs can better interpret colloquialisms, regional dialects, and culturally specific references, making interactions more intuitive and accurate.

Driving Innovation Across Sectors

Localized LLMs have the potential to significantly enhance various sectors across Africa by providing tailored, contextually relevant solutions. In education, these models can act as virtual tutors, delivering personalized learning experiences in native languages. They can bridge educational gaps in remote and rural areas, making quality content accessible and answering queries in a culturally relevant manner. This ensures that students, even in isolated regions, can engage with complex subjects in a way that aligns with their linguistic and contextual needs.

Similarly, in healthcare, localized LLMs play a critical role in regions with limited access to medical professionals. They offer health information in local languages, assisting in the diagnosis of common illnesses and providing guidance on seeking appropriate medical care. This becomes essential in combating misinformation and promoting effective public health initiatives.

Agriculture, a foundational sector for many African economies, benefits from localized LLMs by providing farmers with tailored advice on weather patterns, crop management, and market trends in their preferred languages. This empowers them to make more informed decisions, enhancing productivity and resilience against climate-related challenges.

Furthermore, in governance and public services, localized LLMs facilitate improved citizen engagement by offering services and information in multiple languages. AI-powered chatbots streamline access to public services, bridging the communication gap between authorities and citizens while fostering greater transparency and trust. By addressing these key areas, localized LLMs drive innovation, inclusivity, and sustainable development across Africa.

Driving Inclusive Innovation with Localized LLMs

Africa is positioned to explore new frontiers with localized LLMs by expanding possibilities and encouraging innovation across various domains:

- **Data Empowerment:** By leveraging localized LLMs, communities gain the tools necessary to collect and manage data more effectively, enhancing decision-making and innovation in sectors like agriculture, education, and healthcare.
- **Cultural Preservation:** Localized LLMs support the preservation and promotion of indigenous languages and cultural heritage. By respecting local traditions, these models contribute to a deeper understanding and appreciation of African history and identity.
- **Inclusive Technology Development:** With localized LLMs, diverse groups, including underrepresented communities, can actively participate in the development and deployment of AI technologies, ensuring that solutions are more reflective of their needs and experiences.

Building a Collaborative Ecosystem

To fully realize the potential of localized LLMs, collaboration is essential. Governments, academic institutions, tech companies, and non-profits must work together to:

- **Invest in Data Collection:** Initiatives to digitize and annotate African languages are vital. Community-driven projects and partnerships with local linguists can help build comprehensive datasets.
- **Enhance Computational Resources:** Establishing local AI research hubs and data centers can reduce dependency on foreign infrastructure and promote self-sufficiency.
- **Encourage Open-Source Development:** Sharing research and tools in an open-source manner can democratize access to AI technologies, enabling smaller startups and researchers to contribute to localized LLM development.
- **Foster Talent Development:** Training the next generation of African AI researchers and developers is essential. Scholarships, workshops, and mentorship programs can help nurture talent and encourage innovation.

The Future Outlook

Localized LLMs represent a transformative opportunity for Africa, empowering the continent to harness AI's potential in a way that reflects its unique cultural and linguistic identity. As these models evolve, they will not only drive technological innovation but also promote inclusivity, resilience, and self-reliance.

By addressing challenges through collaboration and investment, Africa can position itself as a leader in localized AI solutions, setting a global standard for how technology can be tailored to serve diverse communities. In doing so, localized LLMs will not be just tools for advancement but catalysts for a brighter and more connected future. TR

Ethio Telecom and AfDB Unite for Africa's Digital Transformation

Ethio telecom and the African Development Bank (AfDB) have initiated a strategic discussion on financing Ethio telecom's digital transformation initiatives. This collaboration will further enhance Ethiopia's digital economy and expand Africa's broader digital transformation.

Recognizing this shared vision, H.E. Mr. Solomon Quaynor, Vice President of the Private Sector, Infrastructure, and Industrialization Complex at AfDB, along with Dr. Leandre Bassole, Deputy Director General for the East Africa Region, and the bank's senior management team, visited Ethio telecom for a high-level strategic meeting. The discussions were led by CEO Frehiwot Tamru and focused on the company's ambitious journey towards realizing a Digital Ethiopia and beyond.

During the discussion Tamru outlined how Ethio telecom is continuously growing and advancing as a key player in Africa's digital transformation journey. By expanding its user base and introducing innovative digital solutions, the company is accelerating Ethiopia's transition to a fully connected, technology-driven economy while actively contributing to Africa's broader digital development. As one of the largest telecom operators in Africa, Ethio telecom remains committed to leveraging technology to bridge the digital divide, create economic opportunities, and encourage a more inclusive and sustainable future.

To achieve this vision, Ethio telecom is actively attracting key partners, including financiers, to realize its dream of a digitally empowered Africa.

Tamru emphasized that Ethio telecom's efforts go beyond Ethiopia's digital transformation—it is a catalyst for Africa's digital empowerment. She reinforced the need for Africa to harness technology and digital solutions to overcome existing challenges, unlock new opportunities, and drive sustainable development. She further noted that financing the telecom industry is not merely about expanding connectivity; it is about empowering entire economies. As key enablers for all sectors, telecom operators depend on financial institutions such as AfDB to continue expanding telecom and digital infrastructure, thereby enhancing national productivity, strengthening competitiveness, and accelerating Africa's digital and economic growth.

H.E. Mr. Solomon Quaynor and his delegation praised Ethio telecom's remarkable progress and its critical contribution to Ethiopia's digital transformation. They recognized the company's efforts in expanding and going beyond connectivity, driving financial inclusion, and fostering a promoting economy that supports businesses and citizens alike.

Orange, Vodacom Bolster DRC Rural Network Coverage

Orange and Vodacom have collaborated to form a first-of-its-kind, rural towerco partnership. Through this partnership, the companies will build, own, and operate solar-powered mobile base stations in underserved areas of the Democratic Republic of Congo (DRC).

The extended network coverage will enable access to telecommunications and mobile financial services for up to 19 million people in less densely populated rural communities, reinforcing both entities' commitment to bridging the digital divide and driving inclusive growth.

"With a footprint serving over 210 million customers across Africa, we have the opportunity to significantly contribute to the continent's socio-economic development by building a digital society and fostering inclusivity for all. This aligns with our purpose to connect for a better future, and our partnership with Orange is a crucial step towards providing mobile coverage to people in previously underserved areas in the DRC," noted Shameel Joosub, CEO of Vodacom Group.

Addressing DRC's Rural Divide

Deploying and operating networks, particularly in deep rural areas, remains a significant challenge in the DRC. To bridge the digital divide and expand network coverage in underserved communities, the companies have pledged to jointly construct up to 2,000 new, solar-powered base stations over six years, using 2G and 4G technologies. This agreement will commence with an initial commitment of 1,000 sites, after which Orange and Vodacom may scale the project by a further 1,000 towers. The completion of this joint venture remains subject to the approval of administrative, regulatory, and competition authorities.

Beyond enhanced population coverage, this combined investment will enable consumers to access voice, data, and mobile money services. With the first base station expected to start operating in 2025, Orange and Vodacom will be sharing active and passive equipment owned by the joint venture as anchor tenants for an initial term of 20 years. The joint venture will offer its passive infrastructure to any MNO interested wherever technically feasible to increase usage and promote a wider range of options for the population.

MTN South Sudan Pioneers eSIM Technology, Redefining Connectivity

MTN South Sudan has made history by launching eSIM technology, marking a significant milestone in the country's telecommunications landscape. The initiative was introduced during a visit to the National Communications Authority (NCA) and celebrated with a joint press conference featuring MTN South Sudan CEO Monzer A. and NCA Director General Napoleon Adok Gai.

CEO Monzer A. described the introduction of eSIM as a transformative step, emphasizing the convenience and innovation it offers to customers. Director General Adok praised the initiative for enhancing security and user experience, urging MTN to focus on customer education and support. He also called for greater accessibility to eSIM-enabled devices to ensure inclusivity.

As the first operator to introduce eSIM technology to South Sudan, MTN reinforces its position as a market leader, setting a benchmark for innovation in the region.

Bayobab Appoints Mazen Mroué as CEO of MTN Digital Infrastructure

Bayobab Group has appointed Mazen Mroué as the new CEO of MTN Digital Infrastructure. Mroué will oversee Bayobab's Fixed Infrastructure and Communication Platforms business units and will execute the Data Centre Business Strategy, positioning the company favorably for growth and profitability in advancing AI development across Africa.

Mroué brings a wealth of experience, a visionary approach, and a proven track record in driving innovation and delivering results. His leadership comes at a pivotal moment for Bayobab as it accelerates its growth, deepens its impact, and strives to set new benchmarks in the industry.

"I am truly honored to lead this incredible organization and continue building on the strong foundation that has been established. Our dedicated team remains focused on delivering the reliability, quality, and innovation our customers have come to expect from us. I lead with passion and a commitment to delivering value in everything we do, and I'm looking forward to exploring new ways to grow our impact in Africa, and across the globe," commented Mroué.

Under Mroué's guidance, Bayobab remains steadfast in its commitment to delivering best-in-class services, strengthening its partnerships, and continuing its journey towards realizing its flagship mission, Connecting Africa.

Mroué joins the dynamic leadership team comprising Mohammed Aliyu, Kedar Gupte, Amaru Chavez-Pujol, Ricardo Varzielas, Madhavi Ramachandran, Ahmad Ramadan, and Hans Schreuder.

Transforming Grid Operations with Telecom Solutions in Cape Town

As urban centers evolve into smarter cities, efficient energy management has become a cornerstone of sustainable development. Cape Town, South Africa's second-largest city, is leading this charge by integrating advanced telecommunication technologies to modernize its electricity grid.

The Imperative for Energy Innovation

Cape Town faces significant energy challenges, including increasing demand, outdated infrastructure, and the need to integrate renewable energy sources. These factors demand innovative approaches to ensure a reliable, efficient, and resilient energy grid. The city's commitment to digitalization and sustainability has created opportunities for telecom-driven advancements in grid management.

Telecom's Role in Modern Grid Management

Advanced telecommunication technologies are transforming traditional energy grids into intelligent, interconnected systems. By enabling real-time communication and data sharing across grid components, telecom solutions enhance monitoring, control, and optimization of energy distribution. In Cape Town, these technologies address critical challenges:

• Smart Metering and Demand Management

Smart meters enable precise tracking of energy consumption patterns. Telecom solutions allow these devices to relay usage data in real-time, helping utilities manage demand more efficiently and reduce waste.

• Renewable Energy Integration

Cape Town is incorporating solar and wind energy into its grid to reduce dependence on fossil fuels. Telecom networks facilitate the seamless integration of these renewable sources by providing real-time data on production and grid status, ensuring efficiency and stability.

• Grid Automation and Maintenance

Advanced telecom technologies support automated grid systems, enabling remote monitoring and management. Predictive maintenance tools, powered by data analytics and IoT connectivity, help identify and address potential issues before they become significant problems.

Strengthening Resilience Against Load Shedding

Load shedding remains a persistent issue in South Africa, highlighting the need for resilient grid operations. Telecom-driven innovations assist Cape Town in addressing this challenge through:

• **Demand Response Programs:** Telecom networks enable utilities to communicate with consumers in real-time, facilitating dynamic load adjustments during peak periods.

• **Energy Storage Solutions:** Telecom technologies support the deployment and management of energy storage systems, ensuring a stable supply during power outages.

Partnerships and Investments

The modernization of Cape Town's grid is fueled by collaboration between public utilities, private telecom providers, and technology innovators. These partnerships have enabled the deployment of fiber-optic networks and 5G technology, which underpin the city's smart grid initiatives.

Collaborations with telecom firms have facilitated the installation of IoT sensors throughout the grid, delivering real-time data on energy flows and equipment performance. These investments have significantly improved grid reliability and operational efficiency.

Socioeconomic Advantages of Modernized Grid Operations

Innovating grid operations with telecom solutions offers numerous benefits for Cape Town's residents and businesses:

1. **Enhanced Service Reliability**

Reduced outages and faster response times boost business productivity and daily life for residents.

2. **Cost Efficiency**

Optimized energy management lowers operational costs for utilities, potentially reducing energy bills for consumers.

3. **Environmental Benefits**

Integrating renewable energy and minimizing waste align with Cape Town's climate goals, promoting a greener future.

4. **Job Creation**

The deployment of telecom and energy infrastructure creates employment opportunities, stimulating local economic growth.

Addressing Challenges

While beneficial, modernizing grid operations comes with challenges. Cape Town must navigate:

- **High Implementation Costs:** Significant investment is required to deploy advanced telecom infrastructure, necessitating strategic partnerships and innovative funding solutions.
- **Cybersecurity Threats:** Increased interconnectivity raises concerns about cyber vulnerabilities, demanding powerful security measures.
- **Regulatory Hurdles:** Complex regulatory frameworks can delay the adoption of new technologies.

Looking Ahead

Despite these obstacles, Cape Town's dedication to innovation and sustainability is driving ongoing progress. The city is exploring emerging technologies such as artificial intelligence (AI) and blockchain to further enhance grid operations. AI-driven analytics optimize energy distribution, while blockchain ensures secure and transparent energy transactions.

A Blueprint for Other Cities

Cape Town's initiatives demonstrate how telecom solutions can revolutionize grid management, serving as a model for other cities across Africa and beyond. By encouraging collaboration, investing in advanced technologies, and addressing implementation challenges, cities can develop resilient energy systems that support economic growth and environmental sustainability.

The fusion of telecommunications and energy management is reshaping Cape Town's grid operations, setting a benchmark for innovative urban energy solutions. As the city continues its digital transformation journey, these efforts not only address pressing energy challenges but also pave the way for a smarter, more sustainable future. This progress underscores the potential of telecom-driven advancements to redefine how cities manage energy, opening new possibilities for urban development. TR

Driving Connectivity and Competition with eSIM Adoption in Africa

The adoption of embedded SIM (eSIM) technology is steadily transforming the telecommunications landscape across Africa, offering a game-changing approach to connectivity and competition. Unlike traditional SIM cards, eSIMs are digital and embedded directly into devices during the manufacturing stage, enabling users to switch networks seamlessly without the need for a physical card. This innovation holds immense potential to bridge connectivity gaps, stimulate competition, and drive economic growth across the continent.

Understanding eSIM Technology

eSIM technology eliminates the need for physical SIM cards by embedding a programmable chip directly into devices such as smartphones, tablets, wearables, and IoT devices. Activation is completed digitally, allowing users to choose or switch between mobile network operators (MNOs) remotely, often through a QR code or app. This flexibility simplifies the user experience, reduces logistical challenges, and expands connectivity options.

Addressing Africa's Connectivity Challenges

Africa's telecom landscape is characterized by rapid mobile adoption yet uneven connectivity, particularly in rural and underserved regions. Traditional SIM cards require physical distribution and infrastructure, which can be challenging in remote areas with poor logistical networks. eSIM technology offers a solution by removing the reliance on physical cards, enabling users to activate and manage mobile plans digitally.

This capability is transformative for extending connectivity to remote communities where telecom infrastructure is lacking. For instance, eSIMs allow travelers and expatriates to quickly switch to local operators, avoiding the high costs of roaming. Additionally, the technology supports multi-network connectivity, which is crucial in regions with unreliable coverage or where users rely on multiple networks for reliability.

Enabling IoT Expansion

The potential of eSIM technology extends beyond personal connectivity. It is a critical enabler of the Internet of Things (IoT), which plays an increasingly vital role in Africa's development. IoT devices with eSIMs can facilitate smarter agriculture, healthcare delivery, and supply chain management. For example, eSIM-enabled sensors can provide real-time data to farmers, improving crop yields, while in healthcare, connected devices can enable remote patient monitoring in areas lacking medical facilities.

Stimulating Competition in the Telecom Sector

One of the most significant benefits of eSIM technology is its ability to promote competition within the telecom sector. By simplifying the process of switching providers, eSIMs empower consumers with greater flexibility and choice. This changes traditional market dynamics, where barriers like the cost of SIM replacement or cumbersome portability procedures often lock users into long-term relationships with specific operators.

Increased competition benefits consumers through improved pricing, better service quality, and innovative offerings. Operators are compelled to enhance their value propositions to attract and retain customers. For instance, multi-network eSIM capabilities allow users to compare and select the best network for their needs, fostering transparency and accountability in the telecom industry.

Breaking Ground with eSIM in Africa

Africa's adoption of eSIM technology faces challenges lsuch as high device costs, limited consumer awareness, regulatory concerns, and inadequate network support. While eSIM-enabled devices are becoming more affordable, misinformation and lack of education about the technology hinder its acceptance. Regulatory uncertainty around data security adds complexity, and not all operators currently support eSIMs, requiring infrastructure upgrades.

Nevertheless, there are promising opportunities: decreasing device costs, operator-driven affordable plans, and supportive government policies can pave the way for growth. Collaboration with global tech leaders and consumer education initiatives will be crucial in unlocking the transformative potential of eSIMs across the continent.

Leading the Way: African eSIM Milestones

Several African countries are spearheading eSIM adoption. In South Africa, operators like Vodacom and MTN provide eSIM services, allowing users to activate mobile plans remotely. Similarly, Kenya's Safaricom has introduced eSIM services for tech-savvy consumers, showcasing the potential of this technology in local markets. These efforts offer valuable lessons for other nations, emphasizing streamlined activation processes, compatibility with a wide range of devices, and consumer education on eSIM benefits.

Shaping Africa's Digital Future

eSIM technology has the immense potential to transform connectivity and competition in Africa. By tackling obstacles like device affordability, consumer awareness, and regulatory barriers, stakeholders can unlock the full power of this innovation. Beyond improving individual connectivity, eSIMs can propel IoT adoption, boost economic productivity, and foster digital inclusion. As adoption increases, Africa's telecom sector will evolve into a more competitive and consumer-centric landscape. Embracing eSIMs represents not just a leap in technology but a critical step in Africa's journey toward a digitally inclusive and interconnected future. TR

Es'hailSat and SNRT Morocco Sign Multi-Year Transponder Deal

Es'hailSat, Qatar's satellite operator, has signed a multi-year, multi-transponder deal with the public broadcaster of Morocco, Société Nationale de Radiodiffusion et de Télévision (SNRT). The agreement includes Direct-to-Home (DTH) services, satellite transponder for Digital Terrestrial Television (DTT), as well as video contribution services at the 25.5° East orbital position, facilitated by the Es'hail-1 satellite.

The Es'hailSat satellite footprint strategically encompasses the Middle East and North Africa (MENA) region, optimizing signal coverage and enabling significant viewership potential for the public broadcaster throughout this expansive area. This enhancement highlights Es'hailSat's commitment to delivering a diverse range of content to satisfy regional demand.

It is important to note that the availability of the National Radio and Television Company's channel package on this satellite significantly enhances signal coverage, allowing for broader access to its programs across the Middle East and North Africa. This partnership between the two organizations reflects their shared commitment to offering diverse content that caters to regional preferences and demands.

"Es'hailSat is delighted to welcome SNRT Morocco and bring on board one of the region's leading public broadcasters to our satellite hotspot," said Mr. Ali Ahmed Al-Kuwari, President and CEO at Es'hailSat. "We believe that the diverse range of programming and depth of the channel bouquet offered by us at Es'hailSat aligns perfectly with SNRT's vision to provide quality Moroccan content to audiences across the region."

SNRT is now part of the Es'hailSat video neighborhood, which further adds to the attractive line up of premium content currently broadcasting via the Es'hail-1 and Es'hail-2 satellites.

New Fiber Optic Backbone to Connect 12 Million in Nigeria

The U.S. Trade and Development Agency (USTDA) has awarded a grant to Nigeria's Federal Ministry of Communications, Innovation and Digital Economy (FMCIDE) to conduct a feasibility study that aims to expand internet access to 12 million Nigerians.

This initiative involves deploying 90,000 kilometers of new fiber optic backbone infrastructure across Nigeria. Washington, D.C.-based HIP Consult Inc. has been selected to lead the study.

"As Nigeria and the United States deepen our cooperation in the technology sector, USTDA is proud to partner with FMCIDE to deliver concrete action in support of our shared digital infrastructure goals," said Enoh T. Ebong, USTDA's Director. "This project will help expand connectivity to Nigeria's urban and rural communities while opening opportunities for trusted U.S. technologies to advance the country's digital priorities."

Boosting Broadband Penetration

The grant was signed during the inaugural U.S.-Nigeria Technology Dialogue at the U.S. Department of State, with FMCIDE Minister, Dr. Bosun Tijani, in attendance. The study aligns with Nigeria's National Broadband Plan 2020-2025, which seeks to boost broadband penetration from 42.27% to 70% and ensure that 90% of the population has access to affordable and reliable internet.

The study will focus on deploying fiber optic infrastructure along existing national power grids, railways, roads, and oil and gas pipelines. It will identify gaps in Nigeria's backbone infrastructure and propose strategies to bridge them, particularly in underserved and remote communities.

This project aligns with key U.S. initiatives, including the Digital Transformation with Africa program, the Prosper Africa initiative, the U.S. Strategy Toward Sub-Saharan Africa, and the Partnership for Global Infrastructure and Investment. These programs prioritize expanding access to a secure, reliable, and interoperable internet, fostering economic growth, and bridging the digital divide.

Morocco Gears Up for 5G Expansion Ahead of Major Sporting Events

Amal El Fallah Seghrouchni, Morocco's Minister Delegate for Digital Transition and Administrative Reform, has announced that the country is planning an imminent rollout of transformative 5G internet as part of its preparations to host the 2025 Africa Cup of Nations (AFCON) and the 2030 FIFA World Cup.

Speaking during a congregation at the House of Representatives, Seghrouchni detailed the government's connectivity plans, which include achieving 5G coverage for 25% of the population by 2026 and 70% by 2030. The cities hosting World Cup matches—Agadir, Casablanca, Fez, Marrakesh, Rabat, and Tangier—will receive comprehensive 5G coverage to ensure continuous, high-speed internet access for both residents and visitors.

Two-Phase Approach

The improvement of Morocco's 5G coverage aligns with the country's National Plan for High-Speed and Very High-Speed Internet Development.

The first phase, spanning 2018 to 2024, brought second-, third-, and fourth-generation telecom services to over 10,640 areas, consequently achieving a 99% penetration rate. The remaining remote regions will be connected via satellite due to the nature of their geographical isolation, Al-Falah noted.

In phase two, satellite technology will be leveraged to expand coverage to 1,800 rural areas by 2026. Seghrouchni highlighted that, as part of the satellite internet initiative, residents in areas without terrestrial coverage will be provided with financial aid of up to MAD 2,500 (USD 243) per subscription. This initiative and supportive approach is expected to benefit up to 4,000 users annually.

Additionally, 6,300 public administrative sites are set to be equipped with fiber-optic technology by the same year. By 2030, the initiative aims to expand fiber-optic access to 5.6 million homes, significantly enhancing digital service availability.

Tanzania's Telecom Market to Grow 6.1% through 2030

The Tanzanian telecom market is projected to rise from USD 5.09 billion in 2025 to USD 6.85 billion by 2030, reflecting a compound annual growth rate (CAGR) of 6.1% during the forecast period.

The key drivers contributing to this year-over-year (YoY) growth, aside from telecom operators, include the expanding adoption of smartphones, enhanced internet accessibility, and new services such as mobile money.

A GlobalData analysis similarly found that the mobile data, fixed voice, and broadband service segments will contribute to the market's growth, while operator revenue growth can be attributed to the telecom regulator's Digital Tanzania Initiative which emphasizes boosting digital connectivity by increasing broadband penetration in the country by the end of 2025.

Network Coverage at a Glance

To aptly demonstrate Tanzania's advancements in network coverage in 2024—which have contributed to sustainable market growth—it's worth acknowledging 2023's statistics. According to the Tanzania Communications Regulatory Authority (TCRA), 3G coverage increased from 62% in June, 2023, to 67% in September, 2023, while 4G coverage improved from 50% to 55% during the same period.

As a result of this steady connectivity, similarly carried through 2024, by 2025, Tanzania's telecom market is projected to see significant advancements, with 3G network coverage reaching 85.7% and 4G coverage reaching 26.16%, according to an analysis conducted by Statista. Internet penetration is expected to rise to 46.67%, with 7.47 million households boasting internet access. The average broadband speed is forecasted to be 14.88 kbit/s, while consumer spending on ICT equipment is estimated to reach USD 0.47 billion. Additionally, ICT service exports per capita are anticipated to reach USD 0.51, reflecting the market's growing contribution to the economy.

Market Catalysts

Tanzania's government aims to curb the digital divide, which has remained front and center, by expanding telecom infrastructure in rural areas. Back in May, 2023, the government approved development projects to connect 8.5 million unserved individuals, simultaneously expanding the telecom market's growth. This project includes the construction of 758 new towers and the upgrade of 304 existing ones, backed by the financial support of both the government (40%) and telecom operators (60%).

Shaping South Africa's Digital Economy Vision for 2030

South Africa stands at a pivotal moment in its journey toward establishing a fully digitized economy by 2030. With a growing emphasis on technology as a driver of economic development, the country is focusing on building a resilient, inclusive, and innovative digital economy that can address pressing socio-economic challenges while enhancing global competitiveness.

The Importance of a Digital Economy

A thriving digital economy is essential for South Africa to achieve sustainable growth, reduce unemployment, and bridge the gap between urban and rural communities. Digital transformation not only accelerates economic activities but also encourages innovation across industries, from agriculture to financial services.

In its Vision 2030 roadmap, the South African government highlights the role of digital technologies in achieving the National Development Plan (NDP) goals. The strategy focuses on integrating technology into governance, education, and business to create a more equitable society.

Key Pillars of South Africa's Digital Economy Vision

To build a future-ready nation, South Africa's Digital Economy Vision rests on key pillars designed to drive innovation, inclusivity, and sustainable growth by 2030.

1. Expanding Digital Infrastructure

Reliable infrastructure is the backbone of a digital economy. South Africa has made strides in expanding broadband connectivity, yet challenges remain in ensuring affordable and reliable internet access for all citizens. The government's spectrum auction in 2022 marked a critical step toward improving mobile network coverage, enabling the deployment of 5G technology, and reducing the digital divide.

To achieve the Vision 2030 objectives, further investments in fiber-optic networks, data centers, and renewable energy solutions for telecom infrastructure are essential. Expanding high-speed connectivity to rural and underserved areas is particularly important, as it can unlock opportunities for remote education, telemedicine, and e-commerce.

2. Fostering Digital Skills Development

A digitally skilled workforce is critical for South Africa to harness the potential of emerging technologies such as artificial intelligence (AI), blockchain, and the Internet of Things (IoT). The government, in collaboration with private-sector players, has launched initiatives like the National Digital and Future Skills Strategy to equip citizens with the necessary skills.

Educational reforms that emphasize STEM (science, technology, engineering, and mathematics) subjects and coding from an early age are pivotal. Partnerships between academic institutions and industry stakeholders can further bridge the skills gap, preparing graduates for the demands of a tech-driven economy.

3. Strengthening the Tech Ecosystem

South Africa boasts a vibrant startup scene, particularly in cities like Cape Town, Johannesburg, and Durban, but the ecosystem requires greater support to flourish. Expanding access to venture capital, fostering innovation hubs, and streamlining regulatory frameworks are necessary steps to nurture homegrown tech entrepreneurs.

Fintech and e-commerce sectors have shown remarkable growth, driven by the increasing adoption of mobile payment solutions and online marketplaces. Encouraging investments in these sectors and promoting public-private partnerships can catalyze innovation, creating new revenue streams and job opportunities.

4. Promoting Digital Inclusion

Digital inclusion lies at the heart of South Africa's Vision 2030. Ensuring that marginalized communities have access to affordable internet, digital literacy programs, and relevant content is crucial to bridging socio-economic disparities.

The government's Universal Service and Access Fund (USAF) aims to address these challenges by subsidizing connectivity in underserved areas and supporting community networks. Initiatives like zero-rated mobile data for educational content have also proven effective in making digital services more accessible.

5. Enhancing Cybersecurity and Data Protection

As South Africa becomes increasingly digitized, the risks of cyberattacks and data breaches grow. Building a secure digital environment is paramount to promoting trust among citizens and businesses.

The implementation of the Protection of Personal Information Act (POPIA) in 2021 was a significant step in strengthening data protection. However, continued investment in cybersecurity infrastructure, awareness campaigns, and the upskilling of cybersecurity professionals is necessary to combat emerging threats and safeguard critical digital assets.

6. Driving E-Government Services

E-government platforms are key to improving public service delivery and fostering transparency. South Africa has begun digitizing various government services, including tax filing, social grant applications, and business registration processes.

Further integration of technologies like AI and blockchain can help unleash the potential of e-governance by streamlining operations, reducing bureaucratic inefficiencies, and enhancing citizen engagement. These advancements can also contribute to combating corruption by ensuring greater accountability.

Challenges to Overcome

While the Vision 2030 roadmap is ambitious, South Africa faces several challenges in achieving its digital economy goals:

- **High Data Costs**: Despite recent reductions, internet access

remains expensive for many citizens, limiting digital inclusion.

- **Energy Constraints:** Frequent power outages, or load-shedding, disrupt digital infrastructure and hinder business operations.
- **Skills Gap:** A shortage of digitally skilled workers remains a significant barrier to adopting and scaling new technologies.
- **Regulatory Hurdles**: Complex and outdated regulations can stifle innovation and deter investment in the tech sector.
- **Inequality:** Socio-economic disparities continue to affect access to digital resources, particularly in rural areas.

The Role of Key Stakeholders

Achieving South Africa's digital economy vision requires a collaborative effort from the government, private sector, and civil society.

- **Government:** Policymakers must prioritize investments in digital infrastructure, streamline regulations, and promote digital literacy.
- **Private Sector:** Businesses have a critical role in driving innovation, funding research and development, and creating digital solutions tailored to local needs.
- **Educational Institutions:** Schools and universities need to align curricula with the demands of a digital economy, fostering a culture of lifelong learning.
- **International Partners:** Collaboration with global technology companies and development agencies can bring expertise, funding, and resources to accelerate South Africa's digital transformation.

Success Stories and Opportunities

Despite challenges, South Africa has several success stories that highlight its potential as a digital leader on the continent:

- **Fintech Innovations:** Many companies have revolutionized financial services by offering accessible, low-cost solutions to underserved populations.
- **E-Government Initiatives:** The South African Revenue Service's eFiling platform has simplified tax compliance, serving as a model for other public services.
- **Tech Hubs:** Innovation hubs like the Tshimologong Digital Innovation Precinct in Johannesburg are encouraging entrepreneurship and collaboration in the tech sector.

Looking ahead, sectors such as agriculture, healthcare, and manufacturing offer immense opportunities for digital transformation. Smart farming technologies, telemedicine platforms, and Industry 4.0 solutions can significantly boost productivity and improve quality of life.

South Africa's Vision 2030 for a digital economy represents a transformative agenda that has the potential to reshape the nation's socio-economic landscape. By addressing infrastructure gaps, fostering digital skills, and promoting innovation, the country can unlock new opportunities for growth and inclusion.

Achieving this vision will require bold leadership, strategic investments, and a commitment to collaboration across all industries. With the right policies and partnerships, South Africa can position itself as a digital powerhouse, not only within Africa but also on the global stage. TR

TEDMOB.AI

Your AI Journey Begins Here

www.tedmob.ai

Hello@tedmob.ai

- Generative AI Systems
- Custom ChatGPT & AI Solutions
- Smart AI Assistants & Chatbots
- Machine Learning & Deep Learning Expertise
- Computer Vision & Sentiment Analyzer
- Natural Language Processing (NLP)

Nokia Achieves 7,000-Patent Milestone, Powering the 5G Revolution

Nokia has achieved a significant milestone, surpassing 7,000 patent families deemed essential for 5G, with further advancements on the horizon.

Nokia's fundamental inventions in 5G include groundbreaking innovations in 5G radio protocol design, 5G security, and interface technologies that define how smartphones, connected cars and other connected devices interact with 5G networks.

Patrik Hammarén, Acting President of Nokia Technologies, said, "Nokia's substantial investment in cellular R&D and standardization continues to pay off. We have now reached the landmark of 7,000 high-quality patent families declared as essential to the 5G standard, and Nokia's active pre-standardization work puts us in a leading position for 6G standardization which begins later this year.

"Thanks to all the Nokia inventors and our patenting professionals for their hard work and problem-solving. Together, they continue to help Nokia maintain its technology leadership and drive cellular innovation forward."

Nokia's industry-leading patent portfolio is built on more than EUR 150 billion invested in R&D and standardization since 2000 and is composed of over 20,000 patent families (each family can comprise several individual patents).
Any device that connects to a cellular network uses Nokia's patented technology and over 250 companies have secured a license to Nokia's patented technologies. These technologies are the essential building blocks for entire industries, including mobile devices, consumer electronics, connected vehicles, IoT devices and solutions, video streaming, and more.

Nokia contributes its inventions to open standards in return for the right to license them on fair, reasonable, and non-discriminatory (FRAND) terms. Companies can license and use these technologies without the need to make their own substantial investments in the standards, fueling innovation and the development of new products and services for consumers.

Ericsson expands its enterprise 5G portfolio with a generative AI virtual expert

Ericsson announced the launch of its generative AI-based NetCloud Assistant (ANA). This next generation of ANA is a virtual expert designed to further simplify enterprise 5G network administration. Unlike traditional chatbots, which leverage search to provide links to existing resources, ANA stands out with the ability to read, understand, and generate new text and graphical content. ANA provides personalized responses by correlating information from multiple technical documents and unique insights from the customer's network, transforming hours or even days of work into seconds.

ANA is the first generative AI virtual expert designed for enterprise Wireless WAN (WWAN) networks, utilizing large language models, with all its AI components hosted entirely within Ericsson's environment. This design ensures user and data privacy by avoiding API calls to third-party consumer generative AI applications.

Pankaj Malhotra, Head of Enterprise Networking and Security, Enterprise Wireless Solutions, Ericsson said: "Ericsson's NetCloud is differentiated in its ability to simplify the deployment, management and troubleshooting of enterprise cellular networking. By investing heavily in cutting-edge AI technology, we are empowering even the most streamlined IT teams to tackle 5G administration challenges, enhancing network reliability, security, and user experience with unparalleled efficiency."

ANA complements Ericsson's NetCloud AIOps dashboard which serves as a vital component in transforming network management. Through an intelligent fault management system, it detects performance-driven anomalies, such as latency and jitter, specific to each customer's specific environment. By providing real-time insights into network performance, AIOps empowers IT teams to proactively address issues, leveraging ANA as needed, to ensure optimal network operations and enhance the overall digital experience.

New ANA features and the NetCloud AIOps dashboard are available for demonstration at Ericsson's NRF 2025 booth #3948. Both features will evolve to support Ericsson Private 5G solutions.

Cisco Introduces AI Defense to Safeguard Enterprises' AI Transformation

Cisco, the leader in security and networking, today announced Cisco AI Defense, a pioneering solution to enable and safeguard AI transformation within enterprises. As AI technology advances, new safety concerns and security threats are emerging at an unprecedented speed which existing security solutions are unprepared to protect against. Cisco AI Defense is purpose-built for enterprises to develop, deploy and secure AI applications with confidence.

"Business and technology leaders can't afford to sacrifice safety for speed when embracing AI," said Jeetu Patel, Executive Vice President and Chief Product Officer, Cisco. "In a dynamic landscape where competition is fierce, speed decides the winners. Fused into the fabric of the network, Cisco AI Defense combines the unique ability to detect and protect against threats when developing and accessing AI applications without tradeoffs."

The stakes of something going wrong with AI are incredibly high. According to Cisco's 2024 AI Readiness Index, only 29% of those surveyed feel fully equipped to detect and prevent unauthorized tampering with AI. The security challenges are also new and complex, with AI applications being multi-model and multi-cloud. Vulnerabilities can occur at model or app level, while responsibility lies with different owners including developers, end users and vendors. As enterprises move beyond public data and begin training models on proprietary data, the risks only grow.

e& Egypt Renews Managed Services Deal with Ericsson

e& Egypt and Ericsson have extended their managed services and customer support agreement for another five years, to strengthen customer-centricity, efficiency, Artificial Intelligence (AI) Integration, cost-savings, and scalability for the communication service provider (CSP).

Ericsson will retain responsibility for e& Egypt's network operations and customer support, helping it to boost service quality, enhance user experiences, and increase scalability for future network growth by leveraging Ericsson's word-leading advanced network operations and optimization, in addition to AI and digital capabilities.

Amr Fathy, Chief Technology and Information Officer at e& Egypt, stated: "In our pursuit to evolve the network and achieve our vision to be Egypt's Top Digital Telco Brand, we will rely on Ericsson as a long-standing, trusted partner through our Managed Network Services agreement extension. This partnership highlights a shared vision to leverage AI-driven network technologies for next-generation advancements in telecommunications. We seek to build on Ericsson's experience to integrate AI in the network operations, improve service quality and user experience for our subscribers while paving the way for future growth."

Ekow Nelson, Vice President and Head of Global Customer Unit for e& at Ericsson Middle East and Africa, said: "We are honored by this renewal, which reinforces our commitment to exceptional service quality. Our extended partnership aligns with e& Egypt's efforts to provide an elevated user experience for its customers, as it transforms into a technology company powering the connected digital future."

Ericsson's long history with e& Egypt spans nearly two decades, with many collaborations across multiple dimensions and two generational shifts in mobile technology. The two partners are currently gearing up to launch 5G in Egypt.

Strengthening Cybersecurity in Africa as Threats Increase

Africa's rapid digital transformation is accompanied by an alarming rise in cyber threats that jeopardize economic growth, public services, and individual safety. Strengthening cybersecurity has emerged as a paramount concern for governments, businesses, and civil society, ensuring that the advantages of digitalization remain intact against the forces of malicious activities. This article delves into the current state of cybersecurity in Africa, examining the evolving threats and the strategic measures being undertaken to counter these challenges.

The Current Landscape of Cybersecurity in Africa

Africa's digital ecosystem is expanding at an unprecedented pace, with mobile phone penetration exceeding 80% and internet access surpassing 43%, as reported by recent studies. Innovations in fintech, e-commerce, and e-government services are transforming economies and improving access to essential services. However, this swift digital adoption has also uncovered various cybersecurity vulnerabilities.

Despite the critical need for stronger cybersecurity measures, many African nations are falling behind. A 2023 report from the ITU Global Cybersecurity Index indicates that fewer than half of the continent's countries have implemented comprehensive cybersecurity legislation. In addition, numerous organizations lack the necessary resources and expertise to effectively fend off cyberattacks. This environment has become an attractive target for cybercriminals who exploit inadequate infrastructure, outdated systems, and a general lack of user awareness.

Escalating Cyber Threats

Cyber threats in Africa are becoming increasingly sophisticated and widespread, adversely affecting both individuals and institutions. Some of the most pressing threats include:

- Phishing and Social Engineering: Cybercriminals frequently utilize manipulative tactics to trick individuals into sharing sensitive information such as passwords and financial details, often taking advantage of the limited cybersecurity knowledge among users.
- Ransomware Attacks: Critical sectors—especially healthcare, education, and government—are prime targets for ransomware attacks wherein perpetrators encrypt essential data and demand a ransom for its release, disrupting vital services and incurring heavy financial damages.
- Financial Cybercrime: The burgeoning fintech landscape in Africa has attracted fraudsters who seek out vulnerabilities in mobile money platforms, online banking systems, and e-payment infrastructures.
- Attacks on Critical Infrastructure: A rise in cyberattacks targeting essential services such as energy, transportation, and telecommunications poses a direct threat to public safety and economic stability.
- Emergence of AI-Powered Threats: The advent of generative AI tools has equipped cybercriminals with the means to produce highly convincing phishing emails, misinformation, and malware, thus amplifying the scale and effectiveness of their assaults.

Economic and Social Ramifications

The financial toll of cybercrime on African economies is staggering, with Interpol estimating annual losses at around $4 billion. Beyond the direct monetary losses, cyberattacks diminish public trust in digital services and stifle innovation. Small and medium enterprises (SMEs)—the lifeblood of many African economies—are particularly vulnerable due to their limited cybersecurity budgets and expertise. Cyber threats also jeopardize critical sectors like healthcare and education, undermining ambitious efforts to achieve Sustainable Development Goals (SDGs).

Proactive Measures for Enhanced Cybersecurity

Acknowledging the critical nature of the issue, various stakeholders across Africa are taking steps to bolster cybersecurity. Notable initiatives include:

- Development of National Cybersecurity Strategies: Countries such as South Africa, Nigeria, and Kenya are formulating national strategies that provide guidance on policy and operational responses, emphasizing improvements to legal frameworks, capacity building, and international collaboration.
- Capacity Building Initiatives: Organizations like the African Union (AU) and the United Nations Development Programme (UNDP) are spearheading capacity-building programs aimed at equipping governments and businesses with essential skills to combat cyber threats, including training for law enforcement and cybersecurity professionals.
- Public-Private Partnerships: Cooperation between government entities and the private sector is proving essential in addressing cybersecurity challenges. For instance, telecommunications companies are investing in secure networks while banks implement sophisticated fraud detection systems.
- Regional Collaboration Frameworks: Initiatives such as the African Union's Convention on Cyber Security and Personal Data Protection (Malabo Convention) strive to harmonize cybersecurity laws and enhance information sharing amongst member states, with regional bodies like ECOWAS and SADC facilitating collaborative efforts.
- Awareness Campaigns: Increasing public awareness of cybersecurity issues is critical. Governments, NGOs, and tech companies are launching initiatives to educate users on safe online behaviors, including recognizing phishing attempts and safeguarding personal information.
- Tech Investments: African organizations are increasingly

leveraging advanced technologies such as artificial intelligence (AI) and machine learning to identify and respond to cyber threats. A wave of cybersecurity startups is emerging across the continent, presenting innovative solutions tailored to local contexts.

Despite these commendable efforts, several factors hinder Africa's progress in enhancing cybersecurity:

- Resource Limitations: Many African nations struggle with constrained budgets for cybersecurity, leading to outdated infrastructure and insufficient staffing.
- Shortage of Skilled Workforce: The continent is facing a critical shortage of cybersecurity professionals, with estimates suggesting a need for at least 500,000 additional experts to meet current demand.
- Inconsistent Policies: Conflicting cybersecurity regulations across African nations complicate cross-border cooperation and enforcement efforts.
- Insufficient Awareness: The general populace remains significantly unaware of cybersecurity issues, making individuals and organizations more vulnerable to attacks.
- Pace of Technological Change: Keeping up with the rapidly evolving threat landscape poses a constant challenge, especially for resource-strapped institutions.

Moving Forward

To effectively combat the escalating cybersecurity threats, Africa must embrace a comprehensive and collaborative strategy. Key recommendations include:

- Strengthening Governance: Governments should prioritize the implementation and enforcement of comprehensive cybersecurity policies and legislation, establishing independent cybersecurity agencies to improve coordination and accountability.
- Fostering International Partnerships: Active engagement in global cybersecurity initiatives and partnerships is essential for Africa to share best practices and secure additional resources. Collaborations with international organizations such as Interpol and ITU can address transnational cybercrime.
- Investing in Education and Training: Bridging the cybersecurity skills gap requires substantial investments in education and training. Universities and technical institutions should introduce specialized cybersecurity programs, while governments and companies support upskilling initiatives.
- Encouraging Innovation: Supporting local cybersecurity startups can drive the development of solutions tailored to Africa's specific challenges. Governments and investors should cultivate environments that benefit technology entrepreneurship.
- Enhancing Public Awareness: Comprehensive efforts are required to educate individuals and businesses on cybersecurity risks and best practices, utilizing diverse mediums such as social media, radio, and community events to broaden outreach.
- Building Organizational Resilience: Organizations must adopt a proactive approach to cybersecurity, implementing strong risk management frameworks, conducting regular audits, and investing in advanced security technologies.

As Africa forges ahead in its digital transformation journey, strengthening cybersecurity becomes increasingly critical to safeguard progress and unlock the full potential of the digital economy. While challenges remain, the united efforts of governments, businesses, and civil society can create a more secure digital ecosystem. By focusing on infrastructure investment, education, and innovation, Africa can not only mitigate cyber threats but also position itself as a global leader in cybersecurity resilience. TR

Is ESG Leading the Charge Over IT Transformation in African Enterprises?

As African enterprises embrace digital transformation strategies, a pressing question arises: can environmental, social, and governance (ESG) principles drive these changes while ensuring sustainability? The rapid adoption of AI solutions, expanding data center capacity, and scaling network infrastructures are boosting energy consumption and carbon emissions, creating tension between digital transformation agendas and ESG commitments.

The Clash Between Digital Transformation and Sustainability

Digital transformation initiatives and ESG commitments often clash. The growing demand for AI and associated technologies is increasing energy consumption and carbon emissions, undermining ESG objectives.

Research by Gartner suggests that by 2025, half of CIOs will have performance metrics tied to the sustainability of IT operations. By 2027, 25% of CIO compensation will be linked to their sustainable technology impact. This shift underscores the need for CIOs to transition from abstract discussions about sustainability to concrete actions.

ESG as a Priority for CEOs

Studies reveal that 44% of CEOs globally prioritize meeting ESG goals over driving digital business initiatives (37%). This reflects a growing awareness of the critical role sustainable IT plays in achieving ESG objectives. Beyond meeting compliance requirements, sustainable IT enhances transparency, boosts brand value, attracts talent, mitigates reputational risks, and fosters innovation while reducing operational costs.

The Business Value of Sustainable IT

Sustainable IT offers tangible benefits:

- **Operational Efficiency:** Reduces energy usage and costs.
- **Talent Retention:** Attracts eco-conscious employees.
- **Investor Appeal:** Demonstrates commitment to ESG principles, drawing investment.
- **Market Competitiveness:** Promotes innovation and competitive advantage.

The IDC's 2024 CEO Sentiment Survey highlights that ESG-driven IT investments, alongside cybersecurity technologies, will dominate IT budgets in the coming year.

Steps Towards Sustainable IT in Africa

African enterprises must adopt actionable strategies to align IT transformation with ESG goals. Here are key steps:

1.Procurement of Sustainable ICT Solutions: IDC research shows that top sustainability criteria in ICT procurement include energy consumption optimization (37%) and environmental impact (33%). African CIOs must prioritize solutions that reduce carbon emissions and use sustainable materials.

2.Measuring and Managing Impact: Effective ESG strategies require comprehensive monitoring of IT's environmental impact. Over half of surveyed companies use carbon management software to track emissions, enabling optimized ICT infrastructure and network redesigns.

3.Addressing Scope 3 Emissions: Scope 3 emissions, which account for 70% of a business' carbon footprint, remain under-measured. By adopting data exchange platforms with standardized methodologies, enterprises can reduce these indirect emissions, aligning with net-zero targets.

4.Investing in Sustainable Cloud Solutions: Communications networks and data centers contribute significantly to ICT's carbon emissions (24% and 45%, respectively). Sustainable cloud networking solutions powered by AI can mitigate these impacts by reducing energy consumption and improving operational efficiency.

Leveraging Technology for ESG Goals

Sustainable ICT technologies like IoT, 5G, and edge computing are critical for meeting ESG objectives. These innovations allow African enterprises to lower energy usage while expanding broadband access and improving connectivity in underserved regions.

With energy-hungry IT estates traditionally pushing up carbon footprints, the integration of energy-efficient solutions is vital. Partnering with leading ICT service providers ensures compliance with sustainability regulations and accelerates the journey toward a greener digital future.

In conclusion, aligning IT transformation with ESG principles is not just a necessity for African enterprises; it is a strategic advantage that drives business growth, innovation, and responsibility. By adopting sustainable IT practices, companies can reduce costs, enhance competitiveness, and contribute to the development of a resilient and responsible digital economy. Through actionable strategies, responsible governance, and strategic partnerships, African CIOs have the opportunity to bridge the gap between technological advancement and sustainability, ensuring that their organizations not only succeed in the digital age but also lead the way toward a more sustainable and inclusive future. As a result, businesses will not only be part of the digital revolution but can also contribute positively to the socio-economic and environmental transformation of Africa, paving the way for long-term growth and prosperity. TR

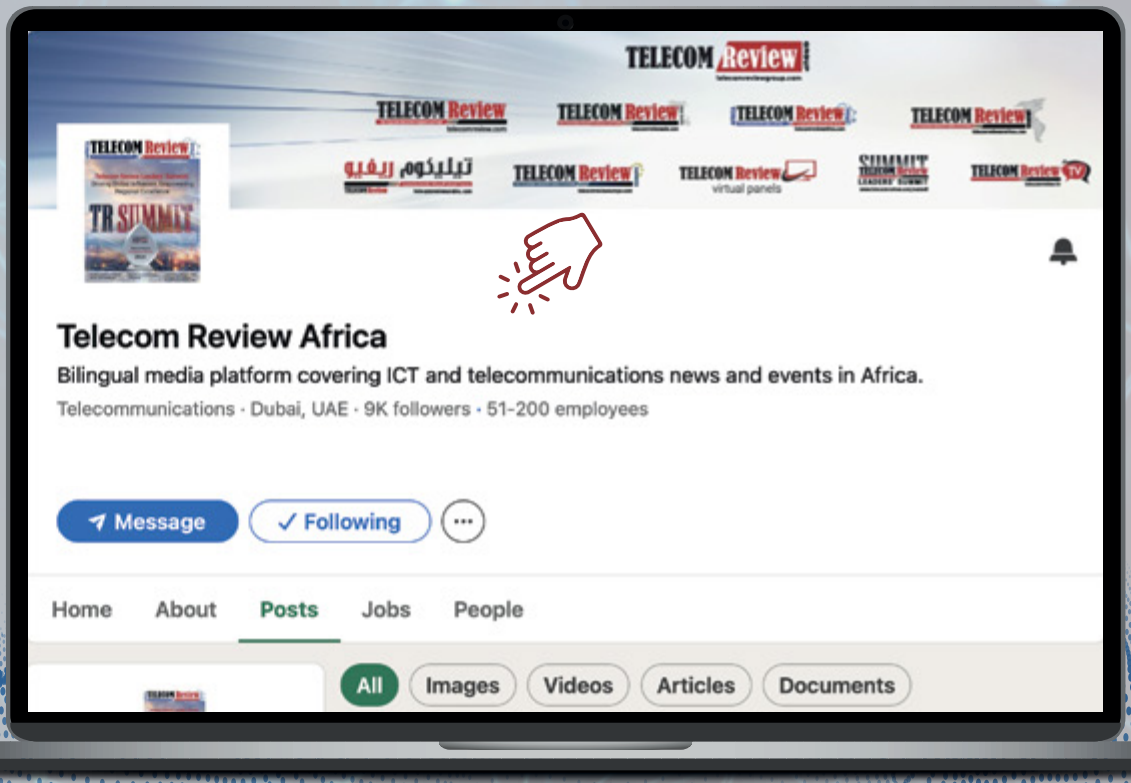
AFRICA TELECOM Review AFRIQUE

THE TELECOMS INDUSTRY MEDIA PLATFORM | LA PLATE-FORME MEDIA DE L'INDUSTRIE TELECOM

telecomreviewafrica.com

FOLLOW OUR PAGE ON LINKEDIN

FOR DAILY UPDATES AND EXCLUSIVE CONTENT



Leveraging Strategies for African Telcos to Enhance Value and Competitiveness

As Africa stands on the brink of a digital revolution, telecommunications companies across the continent are grappling with a distinct set of challenges and prospects. The growth of mobile subscriptions, internet access, and digital services in Africa is staggering, signaling vast potential. To capitalize on this momentum, African telcos must implement innovative strategies that enhance their value propositions and sharpen their competitiveness.

This feature explores actionable strategies that telcos throughout Africa can implement to drive sustainable growth and address the diverse needs of their customers.

1.Embracing Digital Transformation

African telcos are at the forefront of the digital era. With the rise in smartphone usage and the critical role of the Internet of Things (IoT) in daily life, telcos need to invest in digital transformation to improve their services. This includes enhancing customer experience through intuitive mobile applications, optimizing processes for efficiency, and employing agile methodologies in product development.

In addition, harnessing data analytics can yield significant insights into customer behavior and preferences. By leveraging this data, telcos can

provide personalized services, forecast customer churn, and identify lucrative new revenue opportunities. For example, by understanding how customers use their services, telcos can create tailored packages that appeal to specific demographics, from urban youth to rural subscribers.

2.Diversifying Service Portfolios

To maintain a competitive edge, African telcos must expand beyond traditional voice and text messaging services. There is a growing demand for value-added services like mobile banking, cloud solutions, and IoT applications. By strategically broadening their service offerings, telcos can unlock new revenue streams and deepen customer loyalty.

Mobile financial services are particularly vital in regions where access to conventional banking is limited. Telcos can tap into this demand by collaborating with fintech firms to offer seamless mobile payment options, thereby improving customer experiences and attracting new users. IoT solutions can also be applied in sectors such as agriculture, health, and logistics, allowing telcos to play an integral role in the continent's digital economy.

3.Building Strategic Alliances

Collaboration is essential in today's increasingly interconnected African marketplace. Telcos should actively pursue strategic partnerships with technology firms, content providers, and innovative local startups to create synergy. These collaborations can enhance service offerings and broaden market reach while minimizing the risks associated with new innovations.

By joining forces with global tech companies, telcos gain access to advanced technologies and expertise that could otherwise be out of reach. For instance, aligning with cloud service providers can enable telcos to deliver top-quality content services—like video streaming and gaming—that cater to the growing appetite for digital entertainment in Africa.

Moreover, engaging local startups can invigorate innovation within the telco ecosystem. Startups frequently introduce inventive solutions that address local market challenges, driving growth and enhancing customer engagement.

4.Investing in Infrastructure Development

Solid infrastructure remains a cornerstone for competitiveness in the telecommunications industry. To deliver exceptional services, African telcos must invest in modernizing and expanding their networks, particularly in light of surging data demands. The deployment of 4G and 5G networks is important for providing high-speed internet and reliable connectivity across urban and rural areas alike.

Furthermore, investing in renewable energy solutions for powering telecom towers not only reduces operational costs but also addresses energy access challenges in many regions. Utilizing solar and other sustainable energy sources can enhance network stability while also demonstrating a commitment to environmental sustainability. Investment in cybersecurity measures is also critical. As telcos collect and manage vast amounts of user data, ensuring data protection is paramount. Implementing stringent security protocols not only safeguards against breaches but also builds essential trust with customers.

5.Enhancing Customer Engagement and Support

A customer-centric approach should drive all strategies adopted by telcos. Understanding and responding to the shifting needs of customers is vital for cultivating long-term relationships. Continuous feedback loops and seamless customer support systems play key roles.

Using platforms like social media, chatbots, and customer relationship management (CRM) tools can significantly improve customer communication and service delivery. Quick resolution of customer queries can promote loyalty and transform users into brand champions.

Additionally, educating customers about available services helps demystify new technologies. Informative campaigns tailored to local contexts can help users to make informed decisions, thereby increasing their engagement with the telco's services.

As African telcos adapt to a rapidly changing environment, it is clear that innovative strategies are essential for enhancing their value and competitiveness. By embracing digital transformation, expanding service portfolios, fostering strategic partnerships, investing in infrastructure, and reinforcing customer engagement, telcos can achieve sustainable growth in an increasingly competitive landscape. Ultimately, the future of telecommunications in Africa will depend on telcos' ability to anticipate market changes and adapt swiftly, ensuring they remain leaders in a digital and interconnected continent. TR

MWC Barcelona 2025

Join the mobile tech ecosystem from 3 to 6 March 2025 at the world's premier connectivity event, bringing together global companies, governments, and tech innovators.

Place: Fira Gran Via, Barcelona, Spain

3 - 6 MARCH

Artificial Intelligence: Asia's Engine for Growth

Telecom Review will host a virtual panel to discuss AI's impact on Asia's telecom sector, including innovation, cost reduction, network performance, customer experience, and successful AI/GenAI case studies.

Place: Virtual

26 MARCH

Visit our website for more updates:
www.telecomreviewafrica.com

TELECOM Review TV
telecomreview.tv

WATCH LIVE
WATCH **NOW!**

WATCH THE ICT CONTENT ON THE ONLY TV WEBSITE

WWW.TELECOMREVIEW.TV

Visit **telecomreview.tv** and get enlightened about the latest news, trends, services, projects and plans in the ICT industry, featuring fundamental interviews with esteemed leaders in the telecom and ICT sector.

Leading Global ICT Media Platforms

Middle East

Arabia

Africa

Americas

Asia

Europe