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SAMENA TRENDS

FOR SAMENA TELECOMMUNICATIONS COUNCIL'S MEMBERS

BUILDING DIGITAL ECONOMIES

THIS MONTH

MOBILIZING SUBSTANTIAL & SUSTAINABLE RESOURCES FOR DIGITAL DEVELOPMENT

MAY-JUNE, VOLUME 15, 2024

SAMENA TRENDS

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Mobilizing Substantial & Sustainable Resources for Digital Development

Over the last two months, SAMENA Council has echoed the Industry's high-priority areas, including some that it has helped define afresh and advocate as loudly as possible. These include: monetization of 5G investments through Fixed Wireless Access deployment and advancing toward 5G-Advanced as a means to enhance the 5G ecosystem and to bring the vision of smart, gigacities to reality; reaffirming consensus and way forward on 6 GHz spectrum and new opportunities for the Industry as well as for both developing and developed nations; meeting sustainable digital development needs of the SA-ME-NA region, with particular emphasize on the Arab region; developing and promoting fresh new broadband financing approaches to connect the unconnected regions of the world; promoting cybersecurity as an incentivized undertaking and building cyber resilience for the telecom business; and assessing implications of Artificial Intelligence for humans, networks, and the business, at large, among other areas of stakeholder interest from earlier on.

Amidst these areas of endeavor, it is critical that we work together to ensure that acceleration toward digital economies across the regions remains uniform, so that the challenge of various types of digital divides is mitigated.

I will reiterate here what SAMENA Council pressed upon in May during its Leaders' Summit 2024: Co-operation is essential, and we cannot afford fragmentation in our strategies and efforts. Digital development is almost synonymous with access to sustainable, secure, and meaningful connectivity, service availability, and affordability. Further investment and scale are needed, and it is more imperative than ever before that we unlock access to new capital.

Similarly, last month, at the WSIS+20, we had the opportunity to identify some compelling elements for uniting stakeholders in universal digital inclusion: unlocking access to capital by broadening the contributor base for financing digital infrastructure, and adopting structured, pragmatic approaches to mobilize substantial and sustained investment. The rationale is that it is no longer up to Telecom Operators, or the "traditional" telecom industry to bear the burden of building the world's digital infrastructure, but also global digital platforms, content providers, financial institutions, development banks, and governments.

As this edition of SAMENA TRENDS covers a spectrum of outcomes from the Council's industry activities, correlating with aforementioned priority areas for the Industry, we ought to re-think and adopt collaborative investment approaches and flexible, technology-neutral regulatory frameworks to ensure equitable access to digital transformation benefits.

Bocar A. BA
Chief Executive Officer
& Board Member
SAMENA Telecommunications Council

SAMENA Council remains committed to promoting a digitally-inclusive and sustainably-enabled society throughout the SA-ME-NA and its neighboring regions, and to help put into effect strategic initiatives and policy recommendations that are both well-intentioned as they are practical.

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9 Cross Borders

60,000 KM Terrestrial

10,000 Towers Business

LEADERS' SUMMIT 2024

SAMENA Council Leaders' Summit 2024 Underscores the Necessity of Digital Infrastructure & Human Centricity in Sustainable Digital Development

The SAMENA Telecommunications Council successfully hosted the Leaders' Summit 2024 at Atlantis – The Palm, Dubai. Under the theme "Evolving toward Integration, Intelligence & Sustainability in Infrastructure", the Summit brought together industry leaders and participants from geographies spanning as far as Asia Pacific to North America, inclusive of South Asia, the Middle East, Africa, Central Asia, Eastern Europe, among other regions.

In the presence of 350+ attendees – including over 20 regulatory authorities and over 30 Telecom Operators (including stc, e&, Zain, Omantel, Mobily, MTN, Airtel, Digicel, to name a few), the ITU, MBRSC, GSOA, UN Broadband Commission, the United Nations Development Program, technology providers such as Huawei and Nokia, and financial institutions, including Citibank – Leaders' Summit 2024 reinforced the need to evolve, integrate, and be sustainable, as underpinned by the Leaders' Summit's theme, created to aim at catalyzing digital prosperity across regions of Asia, the Middle East, and Africa. The high, diversified level of participation in the SAMENA Council Leaders' Summit was instrumental in driving comprehensive digital strategies, including on funding and financing of future digital infrastructure development and securing cyberspace.

Leaders' Summit 2024 provided multiple roundtables and panels as platforms for dialogue on high-priority areas, such as 6 GHz spectrum and new opportunities for the Industry and for both developing and developed nations; sustainable digital development needs of the SA-ME-NA region; broadband financing approaches to connect the unconnected regions of the world; building cyber resilience for the telecom business; and implications of Artificial

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Intelligence for humans, networks, and the business, at large, among other areas of stakeholder interest. A significant portion of the Leaders' Summit was dedicated to assessing 5G evolution and the way forward to accelerate 5G-Advanced, to enhance the 5G ecosystem, and to bring the vision of smart, gigacities to reality.

This year's Leaders' Summit was again marked by significant direct involvement from the Industry, with chief-patronage provided by TDRA-UAE and global collaboration from ITU. Mobily joined as a platinum digital partner, while Huawei, stc, Zain, and the

World Broadband Association (WBBA) extended strategic and industry development partnership support to the Summit.

Presence and thought-contributions of prominent Broadband Commissioners, including Prof. Dr. Jeffrey Sachs, President, UN Sustainable Development Solutions Network; Ms. Isabelle Mauro, Director General of GSOA; Mr. Lacina

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> *Leaders' Summit 2024 also highlighted the importance of fair market competition, broadband infrastructure and device affordability to support digital innovation and end-user choice, especially with respect to digital services and ecommerce platforms.*

Koné, CEO of Smart Africa; Mr. Bocar BA, CEO of SAMENA Council; as well as representatives from GSMA, MTN and Digicel, underscored the Summit's importance in shaping the future of digital connectivity and inclusion.

Keynote messages voiced by the Guest of Honor, HE Sheikh Nahyan Mubarak Al Nahyan, the UAE's Minister of Tolerance and Coexistence, placed special emphasis on the need to cooperate, for infrastructure and technology development, including Artificial Intelligence, requires international co-operation to ensure human work is rightly and sustainably complemented. The Guest of Honor appreciated the complexity of the Leaders' Summit, its encapsulating theme and focus areas, to facilitate multi-stakeholder dialogue.

Leaders' Summit 2024 also highlighted the importance of fair market competition, broadband infrastructure and device affordability to support digital innovation and end-user choice, especially with respect to digital services and ecommerce platforms, in order to ensure acceleration towards digital economies across the regions remains uniform and so that the challenge of digital divides is mitigated. Fireside chats with industry leaders provided personal insights into the challenges and advancements in digital technology integration, and the crucial need for industry and cross-industry

stakeholder to action broadband infrastructure development and digital inclusion, which includes access to financial services.

As a key collaborator of the SAMENA Council Leaders' Summit, Huawei reiterated its commitment to fostering a connected

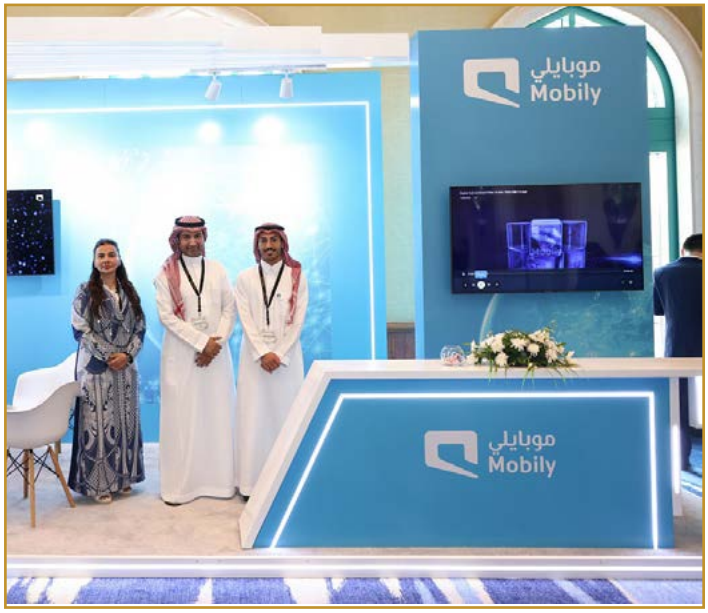
intelligent world through advancements in 5G-Advanced (5G-A), Cloud, and AI, emphasizing the role of digital technologies in driving industry innovation towards sustainable development.

Bocar BA, CEO and Board Member of SAMENA Council, emphasized on the importance of collaborative efforts among industry stakeholders and the role that the SAMENA Council Leaders' Summit plays in fostering integration and cooperation.

"For over a decade, the SAMENA Council Leaders' Summit has positioned key issues and the Industry's needs, private-sector players, and leaders. The annual congregation of leaders brings together stakeholders from government, the private sector, academia, technology providers, global ICT and financial institutions, and big tech to discuss and redefine roles to promote digital development", BA stated.

"Cooperation is essential, and we cannot afford fragmentation. Digital development hinges on consistent access to connectivity, network safety, service availability, and affordability. Some countries are more advanced, and others should learn from them to facilitate further investment and scale. This will enhance market enablement, providing the private sector with return on investment, and ensuring the sustainability of the digital economy. Investment, financing, and funding are essential, and this means unlocking access to capital for development of human capital", BA further added.

The SAMENA Council Leaders' Summit continues to be an essential platform for discussing future trends and strategies in the ICT industry, setting the stage for the following year's industry activities, and setting new trends in how leaders of the ICT Industry congregate, collaborate, and unite to make progress on areas of common interest, and in fulfillment of the Sustainable Development Agenda, particularly on demonstrating the power of collaborative efforts in advancing digital inclusion. Many of the concepts, ideas, strategies, and real-life technology deployment scenarios discussed during the Leaders' Summit promised to transform the global digital landscape, promoting continuous growth and inclusivity, while enabling sustainable digital development and sustainability of the digital ecosystem. SAMENA Council's approach in organizing Leaders' Summit every year enhances connectivity and inclusion on one hand while, on the other hand, it supports the development of policies and frameworks that resonate across different regions and sectors. This approach, in turn, promotes progress in holistically advancing development of the digital ecosystem and the ICT industry, at large.



Key Developments & Outcomes from the Leaders' Summit 2024

The Leaders' Summit 2024 was no ordinary meeting of industry professionals, but a physical reflection on the collaborative efforts of leaders and change-makers, who are enabling the technologically empowered future.

Vision of Sustainable, Impactful Connectivity

At the heart of the SAMENA Leaders' Summit was a clear focus on advancing digital infrastructure as a cornerstone for sustainable development. As nations and industries worldwide grapple with increasing digital demands, the Leaders' Summit highlighted the urgent need for robust, scalable, and sustainable digital infrastructure. Leaders from across various segments of the ICT Industry discussed the imperative to not only expand digital networks but also ensure they are resilient and capable of supporting the growing influx of digital services and data traffic.

Harnessing the Power of 5G

"SAMENA Council is confident that its key GCC telecom players, including especially stc, Mobily, e&, Omantel, Zain, Ooredoo, to name a few of SAMENA Council's Members, who were among the world's first adopters of 5G, can now also be anticipated to trigger the world's first wave in 5G-Advanced…", were the words expressed by CEO of SAMENA Council, Bocar BA, in the opening plenary of the Leaders' Summit 2024. This view was later on substantiated by GSMA's Jawad Abbasi, head of MENA at the mobile industry body. During his talk, Abbasi also noted that "5G is the fastest growing mobile technology" ever as it has taken less than four years for 5G to reach the 1.5 billion user mark.

In the GSMA's presentation of key findings, based on its State of 5G 2024 report, Gulf nations prominently held the top five connectivity index rankings. Three of the top five countries on the index are from the Gulf nations. Kuwait had the highest score (68) followed by the UAE (59), Norway (58), Finland (57), Qatar (57) and Denmark (57).

5G-A Readiness Marked in the Region

The 5G-Advanced Leaders' Forum, held during the SAMENA Council Leaders' Summit 2024, charted the course for the evolution of 5G technology to the 5G-A era, which will catalyze digital innovation and intelligence across the Middle East.

The event was attended by high-profile speakers and guests, including regulatory authorities from the Middle East represented by UAE's Telecommunications and Digital Government Regulatory Authority (TDRA), industry groups represented by GSMA and WBBA, ICT solution providers, enterprises, analysts, ecosystem partners and media members. Eng. Saif Bin Ghelaita, Executive Director, Technology Development Affairs, TDRA, delivered the opening speech at the 5G-A Leaders' Forum. Other notable speakers at the forum included Jawad J. Abbassi, Head of MENA, GSMA; Martin Creaner, DG, WBBA; Khalid Murshed, CTIO, e& UAE; Karim Benkirane, CCO, du; Cao

Ming, President of Wireless Solution, Huawei; Liu Zhiyong, Deputy Chief Engineer of China Telecom and Dr. Philip Song, CMO, Huawei Carrier Business.

Eng. Saif Bin Ghelaita, Executive Director, Technology Development Affairs, TDRA, said: "The commercialization of 5G-Advanced is imminent due to the readiness of both standards and the ecosystem. The TDRA intends to develop a national plan for the 5G-Advanced network and is committed to promoting the planning and allocation of abundant spectrum to further advance mobile network development. In the symphony of 5G-Advanced, collaboration harmonizes progress. Let our collective efforts resonate across borders. We are not merely architects of networks; we are stewards of progress."

The 5G-A Leaders' Forum spotlighted scenarios for a sustainable, technology-driven future encompassing 5G-A, and F5G-A deployment. In addition, dedicated sessions on 5G-A during the Summit explored advancements in standards, network planning and deployment, application scenarios and showcasing successful case implementations and studies. During a panel discussion at the 5G-A Forum, upcoming commercial use of 5G-A in 2024 was also discussed by speakers, including Dr. Sherif Ragaei Sherif, Sr. Strategist, Technology Strategy, Omantel; Dangqi Cheng, Sales VP of MEIG; Wei Bo, CEO of Laipic; and Danial Mausoof, Vice President, Head of Technology and Solutions, Nokia.

During the Leaders' Summit, plans for the UAE to set sail for 5G-Advanced nationwide were highlighted. The announcement was made in the presence of senior representatives from TDRA, e&, du, SAMENA Council, GSMA, WBBA, MEIG and SHOWMAC.

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> *"5G-A is not just a step forward; it is a key milestone on the path to the future. With everyone's joint efforts, we believe 5G-A will build the foundation for a fully connected, intelligent world."*

SAMENA Council, GSMA, WBBA, MEIG and SHOWMAC.

The UAE's 5G-Advanced readiness is in line with its economic vision, which places great importance on ICT infrastructure development and advanced digital technology deployment. The country was an early adopter of 5G technology, and its deployment has already reaped numerous benefits. The UAE has plans underway for the successful deployment of 5G-Advanced.

This next phase in mobile network evolution made possible by 5G-Advanced, is not just an incremental upgrade; it embodies a leap forward in integrating Artificial Intelligence, improving network flexibility, and enabling more complex and varied use cases. From smart cities to advanced industrial applications, 5G-Advanced is expected to be a catalyst for innovative digital solutions across sectors, sparking a revolution in the way we connect and communicate.

5G-A represents the next generation of 5G network upgrades and evolution. 3GPP Release 18 will be the first standard version for 5G-A, which will be frozen in June this year. Operators, equipment suppliers, chip and terminal manufacturers and application vendors gathered to discuss the commercial process of 5G-A and generally recognized that 2024 is the first year of commercial use of 5G-A.

During the 5G-A session, Huawei's Cao Ming, President of Wireless Solutions, emphasized the importance of accelerating the development of 5G-A, which can help the digital economy reach a new level. He said, "5G-A is not just a step forward; it is a key milestone on the path to the future. With everyone's joint efforts, we believe 5G-A will build the foundation for a fully connected, intelligent world." James Chen, President of Huawei's Carrier Sales Department, also emphasized the

5G-Advanced: e& UAE Sets New World Record in 5G Speeds

UAE's telecom technology group e& UAE has achieved the world's fastest recorded speed of 30.5Gbps on its live 5G network. This achievement was unveiled during a demonstration held at SAMENA Council Leaders' Summit 2024, showcasing the successful aggregation of multiple carriers across high-band and mid-band spectrums (1600 MHz in mmWave and 300MHz in C-band), with network speeds reaching 30.5Gbps.

Khalid Murshed, Chief Technology and Information Officer of e& UAE, said: "We are thrilled to announce e& UAE's achievement of the world's fastest 5G network speed. With this accomplishment, we are poised to unleash the boundless potential of 5G technology, empowering innovative services and applications that will transform the fabric of society and the economy.

"Aligned with the UAE's ambitious digital agenda, e& UAE's continuous investment in its network and technologies underscores its commitment to delivering premium digital services. By adopting the latest 5G solutions, we are providing our customers with premium digital experiences today but also paving the way for the 6G era by 2030 in line with the UAE's recently unveiled 6G Roadmap by TDRA," Murshed added.

As the demand for advanced network capabilities continues to surge, e& UAE is poised to revolutionize the landscape of connectivity in the UAE. This vision integrates state-of-the-art technologies and innovative services, including network slicing, private 5G network, RedCap, mobile VPN, and premium Fixed Wireless Access (FWA) leased lines, offering a superior experience for consumers, home, and enterprise customers alike.

e& UAE said in a statement that the monumental achievement solidifies the company's position as a trailblazer in the telecommunications industry, reaffirming its dedication to pushing the boundaries of innovation and delivering connectivity solutions for the digital era.

critical role of 5G and 5G-A in bringing social and economic prosperity. Huawei has been at the forefront of advancing 5G and 5G-A technologies in the Middle East and Central Asia.

With over 300 commercial 5G networks already deployed globally and advancements continuing, the transition from 5G to 5G-Advanced is poised to revolutionize network capabilities and user experiences. While 5G laid the groundwork for faster speeds and more reliable connections, 5G-Advanced is set to push these boundaries further, offering significant enhancements in terms of network efficiency, coverage and performance.

Initiative to Enable Innovative Immersive Experiences

During the SAMENA Council Leaders' Summit 2024, the Middle East Glasses-free 3D Industry Initiative was jointly announced by Zain Group, Omantel, LAiPIC AI, LITITONG, LANSHEN 3D, and others. This initiative seeks to standardize glasses-free 3D technologies, build ecosystem capabilities, and incubate innovative applications using 5G and 5G-A, artificial intelligence (AI), and computing network capabilities. Next-generation digital experience for users and new value-creation for the Industry are key aspirations linked with this initiative. Further development to make glasses-free 3D more immersive and more convenient will be enabled by the high speeds and low latency of 5G and 5G-A networks, powerful computing networks, and AI.

After years of development, the core technology of glasses-free 3D has matured, and users can easily and freely enjoy a natural and comfortable 3D experience through various terminal devices. The high-speed and low latency of 5G and 5G-A networks, the powerful processing capability of the computing networks and the power of AI capabilities are now ready to accelerate real immersion and interaction convenience of glasses-free 3D, bringing users a new visual experience upgrade.

The year 2024 is important for scaled commercialization of glasses-free 3D,

prompting urgency of collaborative development of glasses-free 3D display and AI technologies as well as content, applications, and networks. Therefore, in addition to improved visual experience for users, the launching of this initiative during the Leaders' Summit 2024, is expected to create opportunities for scaled commercialization of glasses-free 3D.

Underscoring the urgent need for market presence of glasses-free 3D devices in diverse form factors and at low costs, the Glasses-free 3D Industry Initiative will channel industry resources to further explore the development of the glasses-free 3D industry as a whole and new directions for the technology. This initiative will promote collaboration among Telecom Operators and industry partners, which will accelerate commercialization of the technology. Moreover, the initiative will help promote the inclusion of new technologies such as AI, AR, and VR to improve the 3D user experience. These technologies can enable more real virtual applications and more intelligent image processing, and improve 3D image quality, control crosstalk, and implement lossless 2D-to-3D content conversion.

Glasses-free 3D is already expanding from recreation and entertainment to domains with practical use-cases in education, healthcare, and manufacturing. For example, glasses-free 3D can help make learning more interesting and intuitive. In healthcare, glasses-free 3D can be used for medical image visualization and surgical simulation. Holistically, the Glasses-free 3D Industry Initiative will further the 3D industry ecosystem, improve 3D user experience, and create new business opportunities in the 3D industry.

Dialogue on Cyber Resilience for Telecom Business

The cyber resilience roundtable, held in collaboration with Huawei and stc, during the Leaders' Summit 2024 aimed at boosting telecom cyber resilience and safeguarding the digital space. The roundtable spotlighted how cybersecurity and privacy protection are critical to business success in the emergent digital world, especially since the world is now increasingly digital and intelligent, with deep network-cloud-intelligence convergence in play, and with immersive digital experiences and ubiquitous intelligent applications, network capabilities, and evolution of infrastructure driving digital transformation.

Speakers discussed the importance of cyber resilience for innovative telecom operators, current challenges in light of accelerated technologies like 5G and 5G-Advanced (5G-A) telecom networks integrated with cloud and AI capabilities, and the remedial actions required for each. They also addressed cloud security, the strategies, models, tools, and skill sets needed to achieve resilience, and the required support from regulatory authorities.

Mazen Al Ahmadi, General Manager of Cyber Defense at stc, said, "In today's rapidly evolving digital landscape, cybersecurity and privacy protection have emerged as paramount concerns for businesses across all sectors, particularly in the telecom industry. The potential for cyber threats and data breaches has grown exponentially as the world becomes increasingly interconnected and reliant on digital infrastructure. Recognizing the critical importance of addressing these challenges, the roundtable was a vital platform for industry leaders, experts, and stakeholders to engage in meaningful discussions, share invaluable insights, and collaborate on strategies to fortify the telecom industry against the ever-present menace of cyber threats."

Mohammed Alosaimi, Chief Security Officer at Huawei Saudi Arabia, reaffirmed Huawei's commitment to reinforcing cybersecurity infrastructure, stating, "As an industry leader actively engaged in cybersecurity R&D and building a cybersecurity ecosystem in the region, Huawei remains steadfast in our collaboration with carriers and partners to strengthen the construction of digital infrastructure around the world, build a thriving ecosystem, and unleash the potential of the digital world securely."

The roundtable briefly delved into cyber threats, vulnerabilities, insider threats, supply chain risks, and the challenges in securing legacy signaling systems (2G & 3G) versus modern IP-based networks (4G & 5G). Additionally, the speakers shared cybersecurity use cases that support telecom business success. The roundtable also iterated the importance of collaboration between industry stakeholders in addressing existing and forthcoming cybersecurity challenges, improve network resilience and signaling security across the telecom ecosystem, and adhere to international standards and guidelines such as GSMA NESAS, MCKB, and OIC-CERT recommendations.

Spurring Digital Growth with 6 GHz Spectrum

The harmonization of 6 GHz across the ITU regions, following WRC-23, represents a significant leap in potential for the 5G or 5G-Advanced (or 5G-A) ecosystem and paves the way for the advent of 6G technologies and the global expansion of broadband technologies, addressing the digital divides, and promoting sustainable connectivity as well as a more equitable digital future.

This session during the Leaders' Summit 2024 brought together industry leaders, policymakers, and ecosystem partners to discuss the future of digital communication technologies, leveraging 6 GHz harmonized spectrum availability.

Particular attention was focused on how harmonization of the 6 GHz spectrum may impact the speed and efficiency of deploying 5G, 5.5G, and potential future 6G networks in the region; what specific advantages does the new spectrum allocation offer for the development and performance of 5G Advanced and potential 6G technologies, particularly in terms of network capacity, latency, and overall performance; how can regulatory bodies collaborate with telecom industry stakeholders to establish frameworks and incentives that encourage investment in research and development, fostering innovation and creating new value propositions enabled by the utilization of the newly allocated spectrum; what collaborative measures can regional policymakers and industry leaders undertake to ensure a smooth and timely implementation of WRC-23 decisions regarding the 6 GHz spectrum, considering factors such as spectrum allocation, licensing frameworks, and regulatory harmonization; how can regional policymakers and industry leaders coordinate efforts to educate stakeholders, including telecom operators, equipment manufacturers, and consumers, about the implications of WRC-23 decisions on the 6 GHz spectrum, and what strategies can be employed to promote awareness and compliance with new regulations and standards?

All participants expressed their satisfaction with the decisions taken at the WRC-23. They drew attention to the importance of the fact that the 700 MHz upper part of the 1200 MHz spectrum, the last remaining single piece in the 6GHz Middle Band, can be used for 5G advancement.

SAMENA Council suggested that that proceedings at the WRC-27 should positively build onto the spectrum allocation decisions taken at the WRC-23, particularly to ensure better coverage and capacity, less network densification, less carbon emissions, less capex/opex, cheap user tariffs, and lesser taxation burdens on Telecom Operators.

Funding Broadband and Tackling Digital Divides

A recurring sub-theme at the Leaders' Summit was the emphasis on digital inclusivity and fostering fair market competition. Speakers from various sectors highlighted the challenges and opportunities in making broadband and digital services accessible and affordable. The discussions underscored the importance of creating a balanced digital ecosystem that promotes innovation while ensuring that the fruits of digital advancements are equitably shared. Addressing the digital divide, particularly in underserved regions, is crucial for achieving comprehensive digital inclusion.

A key highlight of the Leaders' Summit 2024 was the ICT & Financing Roundtable, which focused on innovative financing models for broadband infrastructure. The discussions revolved around unlocking access to capital through broadening the contributor base, which involves diversifying the stakeholders and contributions involved in financing digital infrastructure. This approach is crucial for ensuring the sustainability and predictability of investments, which are vital for long-term success. The Roundtable, which congregated the financing community, telecommunications operators, policy makers and regulators, underscored the necessity of expanding financial contributions beyond the traditional telecom sector to include technology firms, content providers, financial institutions, development banks, and governments. Participants at the Roundtable advocated for a Universal Broadband Financing Framework, collaborated on by SAMENA Council and industry stakeholders, and which is currently being piloted in Rwanda and Nigeria, and which embraces and aligns with insights from the 21st Century Financing Models for Bridging the Connectivity Gap Broadband Commission Working Report, the outcomes of the Commission's Annual Fall Meeting 2023 and the follow-up 21st Century Advocacy Group London Meeting in November 2023. This framework is built on the principle that diverse contributions can secure the capital needed to drive forward universal access initiatives, ensuring that digital networks reach the most remote and underserved areas.

As a result of this financing framework, there's potential to work with SAMENA Council Members and other industry stakeholders on integrating public and private investments across regions, including Africa, ASEAN, and throughout SA-ME-NA, to ensure that broadband developments are not only technologically advanced but also financially and environmentally sustainable.

Shifting Paradigms in Technology, Infrastructure, and the Digital Environment

The Industry is now home to new technologies, applications, mobile and fixed-line infrastructure advancements, super-efficient energy technologies, and advanced computing systems, demonstrating how other industries could be reshaped and how new paradigms in intelligent working, secure digital environment, and sustainability driven initiatives could be put into effect by the private sector and the government sector decision-makers.

This panel discussion during the Leaders' Summit delved into national policy and regulatory plans for future infrastructure development in the region; collective responsibilities and expectations in view of technology emergence, infrastructure advancements, and complexities arising in the digital environment; and meeting varying regional and market needs in terms of sustainable digital-led development

A key finding of the discussion was that the future of infrastructure is now less about speed and more about services, prioritizing security, resilience, reliability, and life-impacting applications, such as health services and financial inclusion. Best effort is no longer sufficient. We need pragmatic, reality-based, human-centric technology deployment, and the Industry requires regulatory frameworks that integrate financial and socio-economic sustainability objectives. These discussions align with SAMENA's priorities by fostering an environment where telecom operators can thrive being in the transforming digital landscape.

AI, Sustainability & Intelligent Digital Transformation

As the telecom sector continues to evolve, a key focus is on sustainable, intelligence-driven digital transformation, which plays a crucial role in addressing global environmental challenges, including mitigating the impact of greenhouse gases, not only in operations but also by catalyzing innovations with other ecosystem partners. Given enhancing computation power, cloudification, and with the potential to beneficially exploit the power of AI, emerging ICT talent, the ICT industry is at crossroads where it can both contribute to and benefit from sustainable development-led strategies.

This panel discussion focused on leveraging cloud and IoT technologies to enhance sustainability and drive growth; achieving technology integration and agility in the telco sector to reduce carbon footprints; and how AI is providing capabilities that we can readily leverage, and not fear, to help accelerate digital transformation and progress on sustainability imperatives.

AI's role in enhancing network efficiency, improving customer service, and driving new business models was a key point of discussion at the Leaders' Summit 2024, reflecting a broader industry shift towards intelligent, data-driven decision-making, and how digital technologies can support the Sustainable Development Goals (SDGs). The discussion explored how innovations in ICT could help manage resources more efficiently, reduce environmental impact, and create inclusive economic opportunities. The discourse extended to the role of green technologies in the telecom industry, emphasizing the need for an eco-friendly approach to network expansion and management.

Advancing Sustainable Development in the Arab Region

The SAMENA Council Leaders' Summit 2024 served as a platform for the United Nations Development Programme (UNDP) and the Arab Information and Communication Technology Organization (AICTO) to enter a strategic partnership for harnessing digital technologies to drive sustainable development across the Arab region. The agreement outlines key areas of cooperation where UNDP and AICTO will jointly leverage their expertise and resources to pioneer sustainable development through digital innovation in the Arab region—as part of the Digital for Sustainable Development (D4SD) initiative that UNDP is pioneering with many partners in the region.

"Leveraging digital technologies can accelerate progress towards achieving the Sustainable Development Goals, while leaving no one behind," highlighted Susanne Dam-Hansen, acting Director of the UNDP Regional Hub for Arab States in Amman. "The partnership that we are formalizing with AICTO represents a significant milestone in our efforts to harness the transformative potential of digital technologies for sustainable development in the Arab States region."

The collaboration between AICTO and UNDP extends to capacity-building efforts aimed at enhancing skills and understanding related to sustainable development and digitalization. Additionally, both organizations will collaborate on the development and implementation of digital policies aligned with the D4SD initiative, while actively sharing knowledge, best practices, and research findings to foster a culture of innovation and progress.

Through this partnership agreement, UNDP and AICTO will also collaborate on establishing standards for responsible data governance, recognizing the pivotal role data plays in digital transformation and the need for ethical and secure practices to drive sustainable development forward. The partnership represents a significant step towards building a more inclusive, resilient, and prosperous future for all.

This agreement between UNDP and AICTO follows the earlier signing of an MoU between UNDP and SAMENA Council on advancing Digital for Sustainable Development (D4SD) initiative in the Arab region. The MoU was signed on the sidelines of the Arab States Digital Day during MWC Barcelona, marking a significant milestone in fostering digital innovation for sustainable development. The partnership between UNDP and SAMENA Telecommunications Council under the D4SD initiative aims to leverage digital technologies to address key sustainable development challenges in the Arab region. Through this collaboration, both organizations are committed to working towards promoting digital inclusion, advocating for sustainable development goals, and enhancing connectivity and digitalization initiatives in the region.

Spotlighting Sustainability for the Space & Satellite Ecosystem

In the ever-evolving Space & Satellite Ecosystem, the integration of terrestrial and non-terrestrial networks is a key focus, offering enhanced global connectivity and resilience. With the advent of direct-to-device (D2D) technologies, the line between consumer-grade cell phones and satellites is blurring, fostering what many call "the great convergence". The deployment of Low- and Mid-Earth Orbit (LEO/MEO) satellite constellations is instrumental in this transformation, enabling continuous service and widespread coverage. This session explored how these advancements are shaping the future of space commercialization and the broader impact on global communication networks and sustainability of space, while addressing two core issues in the business: Sustainability imperatives and stakeholder alignment on how to maintain access to and usability of space, and Non-terrestrial Networks and Terrestrial Network Integration.

Participants agreed that debris, carbon emission, orbit management, etc. are needed to be considered urgently. SAMENA Council highlighted that space sustainability does not cover only debris, but also covers sustainability in investment, technology development, security and safety, energy efficiency, new use-cases, business models, frequencies, connectivity, policies and regulatory transformation, inclusive of the need to foster collaboration between terrestrial and non-terrestrial digital communication service providers.

SAMENA Council's Recognition of the UAE's Regulatory Leadership in ICT Development

For well over a decade, SAMENA Council has physically witnessed the UAE's digital transformation and the TDRA-UAE's exceptional enabling role in making it possible, in collaboration with the private sector.

Now in 2024 – in what may be called the year of 5G-Advanced, SAMENA Council continues to witness the TDRA's leadership in the advancement of digital technologies – this time, on the "International Mobile Telecommunications technology 2030"; the sixth generation of mobile networks (6G).

The 6G Roadmap, unveiled by the TDRA prior to the Leaders' Summit 2024, is a demonstration of an effective, multi-pronged commitment to digital inclusion, security, privacy, environmental sustainability, and collaboration with the private sector.

As an observer as well as an active part of the region's digital ecosystem, SAMENA Council notes that the UAE is the only country to chair two World Radiocommunication Conferences, most recent being the WRC-23, with its historic achievement of consensus on the 6GHz spectrum; another subject that has been discussed.

In all this, globally, the TDRA's role has been equally well-established, especially in setting new digital benchmarks, developing international communications and supporting processes that help in building Member State and sector-level consensus, as well as representing the UAE as a leader on the fiber, 5G, 5G-Advanced, and now 6G fronts.

In the way national ICT plans have met and are meeting fulfillment in the UAE and the consistency and speed with which the national digital transformation vision continues to materialize under the leadership of TDRA, it was SAMENA Council's pleasure to present to the TDRA SAMENA Council's token of recognition and appreciation for "Regulatory Leadership in National and Global Digital Transformation", received on behalf of the TDRA by HE Mr. Mohammed Al Ramsi, Deputy Director General of TDRA - UAE and Chairman of WRC-23.

Priorities Highlighted during the Leaders' Summit 2024

The SAMENA Council Leaders' Summit 2024 established that everything, ranging from technologies, collaborations, partnerships, use-cases, to people and machines, must come together and be seamlessly integrated meaningfully and beneficially in the interest of all stakeholders, including end-users, in an inclusive manner. This necessitates focus on integration and sustainability in correlation with the evolution underway within the Industry.

However, this also merits consideration of important factors, such as a holistic focus on technology, infrastructure development, the digital environment, building cyber resilience, intelligence-based digital transformation, spectrum availability for next-generation digital technologies, digital innovation, expanding choice for the digital user, new infrastructure financing approaches, and understanding what is required to lead in the next phase of the digital era.

Priority areas to focus on include:

1. Economic development in the digital age requires preparedness for a more inclusive and equitable future
2. Advanced ICT infrastructure, including 5G-Advanced capabilities, as well as allied technologies such as Artificial Intelligence, Intelligent Connectivity, IoT, 5G, Cloud infrastructure, all having pivotal role Sustainable Development
3. Understanding "sustainable connectivity" (which implies we need to focus on investment, enabling environment, digital trust-building, unlocking new capital, etc. etc.); "emerging ecosystem" (indicative of how diversity is growing in the digital realm, with innovations and new visions and digital players emerging), and "digital economy" (which is reflective of a new age of human endeavor)
4. Ensuring technology remains human-centric, while the Industry reconciles the drive for profitability and market competitiveness with its obligations towards social and environmental responsibilities
5. Understanding the high importance of fixed broadband, to serve as a solid backbone of fiber in the access, backbone network, and data centers

6. Aiming for economic fairness, meaningful and sustainable connectivity, and overcoming various forms of digital divides
7. The shift to One Gigabit and 10 Gigabit broadband in the mature markets of the SA-ME-NA region
8. NTN integration, as key opportunities remain linked to satellite, including space sustainability prospects of collaboration
9. Regulatory and policy-level challenges facing broadband development, which remain linked to administrative and procedure-level hurdles, such as right of way across land to lay fiber and obtaining permissions in different regions of the world
10. Broadband infrastructure funding and financing, and unlocking access to new capital by contributors other than Telecom Operators
11. Understanding that while on the mobile side, major challenges around regulations related to sustainability and energy efficiency, and spectrum regulation, which, of course, come into play; on the fixed-line front, challenges relate to deployment costs, permissions, partnerships, and incentivization
12. Advancements trends in broadband, which point to exceptionally high transmission capabilities, such as 10 GPON or 50 GPON, and more advanced networks, propelled by demand for 4K video, 8K video, AR, VR, and 3D glassless TVs, IoT, AI, and other allied technologies
13. Monetization of 5G investments, and moving toward 5G Advanced, or 5G-A, with fixed-wireless access (FWA) being a key area to investigate for monetization purposes
14. Incentivizing cybersecurity, and integrating cybersecurity resilience as a strategic business value, not just a compliance obligation
15. Financing Broadband by engaging new stakeholders
16. Creating new opportunities with spectrum in 6 GHz IMT-defined frequencies
17. Implementing recommendations of the UN Broadband Commission
18. Fostering innovation, entrepreneurship, and sustainable digital-led development in the region, especially in the Arab States, and support the work of the Digital Innovation Board
19. Integrating cybersecurity resilience as a strategic business value, not just a compliance obligation
20. Focusing on sustainable investment and collaboration, which is especially pertinent as digital transformation goals are increasingly aligned with environmental sustainability standards
21. Prioritizing service robustness over data speeds
22. Timely assessing the impact of AI on network costs due to generative content.

SAMENA Council Advocacy

SAMENA Council's CEO Bocar BA Advocates Adoption of Innovative Financing Models at WSIS 2024 to Bridge Digital Divide

At the WSIS 2024 Leaders TalkX session, titled "Partnership Pivot: Innovating International Cooperation to Scale Digital Inclusion," SAMENA Telecommunications Council, represented by CEO Bocar Ba, emphasized the critical need for enhanced international collaboration and innovative financing to address the global digital divide. With 2.6 billion people lacking access to ICTs, Ba underscored the importance of strategic partnerships and sustainable investment models.

> *Ba advocated expanding the base of contributors beyond the traditional telecom industry to include global digital platforms, content providers, financial institutions, development banks, and governments.*

In his address, Ba identified the most compelling element for uniting stakeholders in universal digital inclusion: unlocking access to capital by broadening the contributor base for financing digital infrastructure. He highlighted that connectivity is foundational for economic and societal inclusion, requiring a structured approach to mobilize substantial and sustained investment. Ba advocated expanding the base of contributors beyond the traditional telecom industry to include global digital platforms, content providers, financial institutions, development banks, and governments.

Ba drew on his experience as co-chair of the UN Broadband Commission's former Working Group on 21st-century financing models, promoting a Universal Broadband Financing Framework to secure the necessary capital for universal access initiatives. He called for collaborative investment approaches and flexible, technology-neutral regulatory frameworks to ensure equitable access to digital transformation benefits. Ba reaffirmed SAMENA Council's commitment to promoting a digitally inclusive global society through strategic initiatives and policy recommendations.

> *Ba reaffirmed SAMENA Council's commitment to promoting a digitally inclusive global society through strategic initiatives and policy recommendations.*

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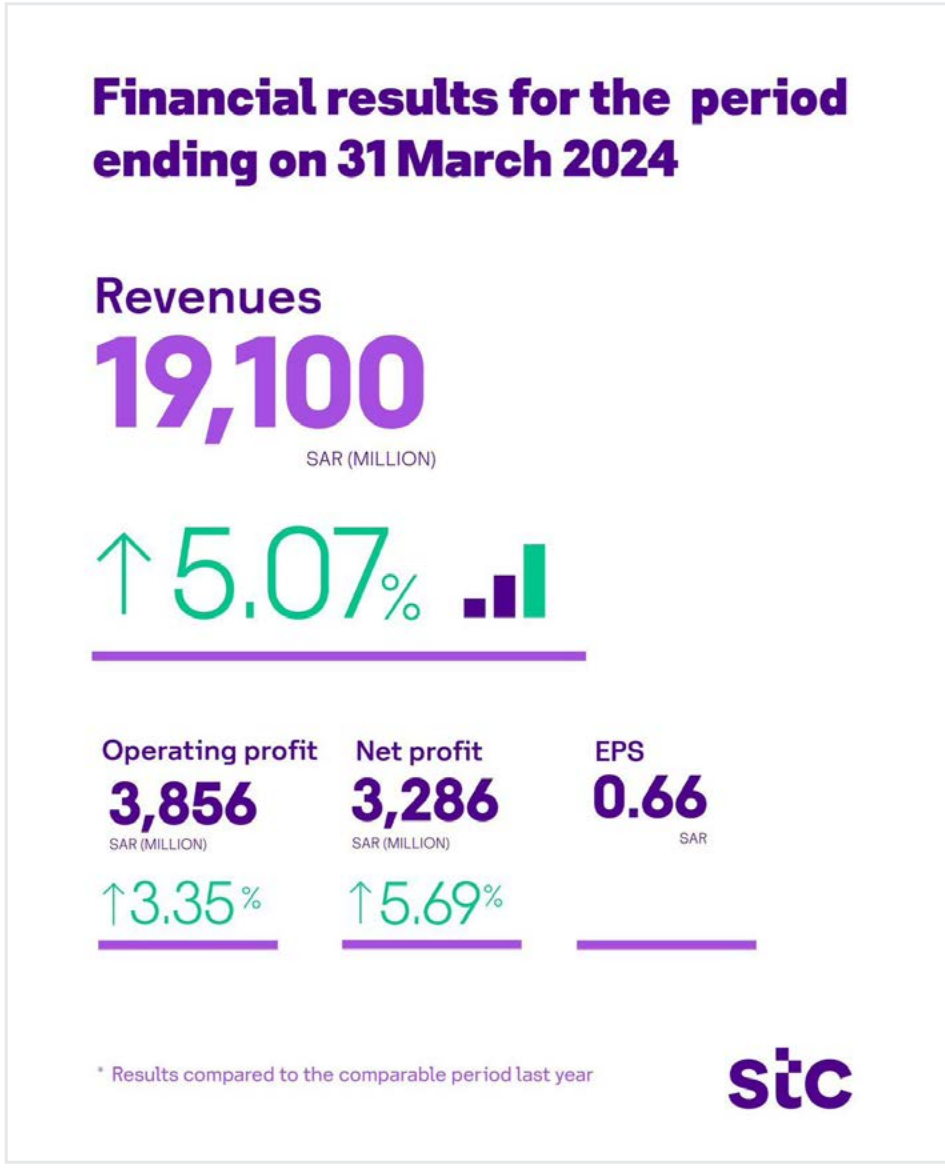
MEMBERS NEWS

stc's Revenues Rise Over 5 Percent to $5.09 Billion in Q1 2024

Group's net profit surged by 44.50 percent to SAR3.28 billion. The group has also reaffirmed its position as the most valuable telecom brand in the Middle East. Saudi Arabia's stc Group has recently released its financial results for the first quarter of 2024, which showcased robust performance across key metrics. The group's revenues for Q1 saw a 7.76 percent increase compared to the previous quarter and a 5.07 percent annual rise to SAR19.1 billion ($5.09 billion). stc attributes this growth in revenue to the 1.2 percent increase in stc KSA's revenues. Its commercial unit revenues rose 6.7 percent while its carriers and wholesale unit revenues were up 5.7 percent. This offset the decline in the business unit's revenues. In addition, the group's subsidiaries marked great growth during Q1 with their revenues increasing 13 percent.



Profits and earnings

stc's gross profit saw a 5.13 percent quarterly increase and a 1.65 percent annual increase to SAR9.386 billion. Meanwhile, net profit surged by 44.50 percent compared to the previous quarter, reaching SAR3.28 billion. As for earnings before interest, taxes, zakat, depreciation, and amortization (EBITDA), the figure saw a 16.30 percent quarterly increase and a 2.07 percent annual increase to SAR6.47 billion. For Q1 of 2024, stc will distribute SAR0.40 per share, in line with its dividends distribution policy approved by the General Assembly.

Strategic partnerships and initiatives

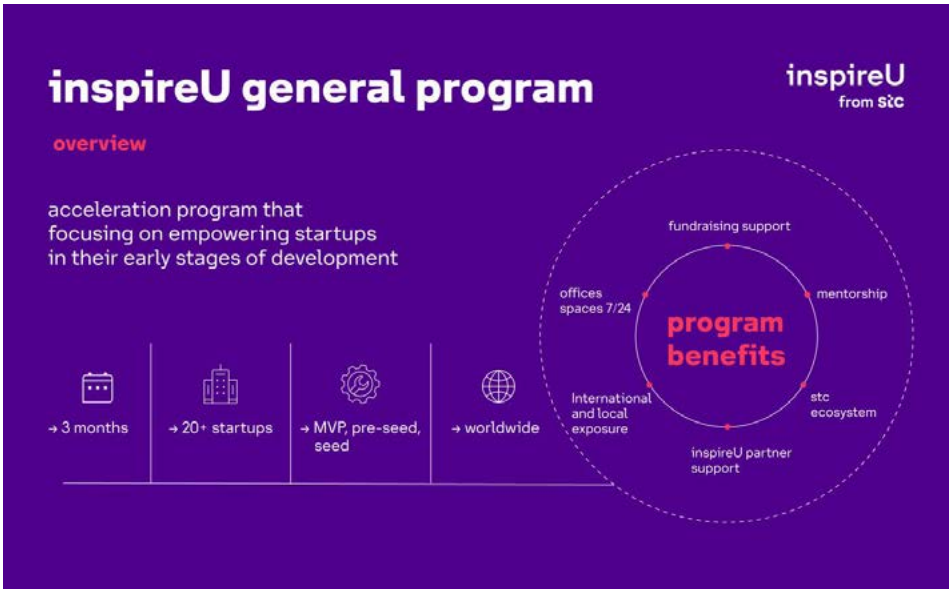
Beyond financial performance, stc Group demonstrated its strategic foresight through key partnerships and digital initiatives. Olayan Mohammed Alwetaid, stc Group CEO, stated that the acquisition of a 51 percent stake in the Telecommunications Towers Company (TAWAL) by the Public Investment Fund (PIF) represents a strategic move to consolidate the company's growth in the telecommunications sector. Moreover, stc Bank's beta launch, approved by the Saudi Central Bank (SAMA), signals the company's advancement into fintech, aligning with the goals of Vision 2030.

Market leadership

Amidst these milestones, stc Group reaffirmed its position as the most valuable telecom brand in the Middle East, setting the stage for its continuous market leadership. The company's commitment to innovation is evident through its partnerships with industry giants like Huawei, Ericsson and Samsung, aimed at accelerating digital transformation in the region.

stc Group Announces the Launch of the Eleventh Batch to Support Digital Innovation Through inspire

stc Group, the engine of digital transformation, is thrilled to announce the launch the 11th intake of the "inspireU: General Program" a program designed to propel early stage startups forward. With a focus on strategic domains by having a specialized tracks on gaming with stc play, cybersecurity with sirar by stc, fintech with stc Bank, and IoT with iot squared. Aligned with Saudi Arabia's Vision 2030, inspireU aims to diversify the economy and foster digital innovation. Through this program, stc creates a supportive environment for startups and enabling entrepreneurs. The program aims to accelerate worldwide startup's growth and creating value for stc by facilitating the link between stc ecosystem startups, offering international and local promotional exposure, soft-landing support, services from inspireU partners, office space 24/7, Silicon Valley expertise, world-class mentoring, and fundraising support. Since its inception in 2015, the inspireU program has been a beacon of success, accelerating and promoting over 110 digital startups across diverse fields. These startups have generated an investments exceeding 1 billion SAR and have developed a market value of more than 12 billion SAR. This success has translated into over 600,000 direct and indirect job opportunities, benefiting a user of more than 40 million individuals. The program aims also to impact the region significantly, fostering innovation and accelerating growth. In addition, its contribution to the local and global entrepreneurial landscape is anticipated to influence the GDP and drive technological advancements positively.



stc Group Named "Telecom & Digital Service Provider of the Year" at Economy Middle East Summit 2024

Economy Middle East awarded stc Group the "Telecom & Digital Service Provider of the Year" at its 2024 summit. Held in Abu Dhabi on 1 May, Economy Middle East brings together a number of Ministers and industry experts from across the private and public sectors under the theme "Accelerating Future Growth". The program focuses on addressing the key challenges and opportunities across banking, finance, technology, hospitality, tourism, and the future of mobility. The recognition of stc Group as the leading Telecom & Digital Service Provider of the year across the region is a testament to the Kingdom of Saudi Arabia's progress in driving digital transformation, domestically and worldwide. stc Group's focus on innovative technology expands across digital infrastructure, cloud computing, cybersecurity, Internet of Things (IoT), digital payments, and digital entertainment. The Economy Middle East Summit award adds to stc Group's exceptional start to 2024. The 2024 Brand Finance Report named stc Group as the leading telecom brand in the Middle East by revenue and ranked the Group as the 149th most valuable brand globally. Building on stc Group's participation at global industry events, such as Mobile World Congress and LEAP, stc Group's honorable recognition from Economy Middle East will continue to catapult the company forward and empower the Group's continued innovation as the region's leading Telecom & Digital Service Provider.

e& Carrier & Wholesale Achieves Dual Wins at CC-Global Awards in Berlin

e& Carrier & Wholesale has secured two notable awards at the eighth annual Carrier Community Global Awards (CCGA) in Berlin, achieving 'Best Regional Data Center Operator' and 'Middle East Regional Operator of the Year'. Nabil Baccouche, Group Chief Carrier & Wholesale Officer, e&, said: "In a landscape driven by transformation, being recognized by industry experts at the CC-Global Awards in Berlin for both our operational excellence and impactful digital infrastructure inspires us to innovate further, empowering our global partners for substantial growth." Being honored as the Middle East Regional Operator of the Year highlights e&'s transformative impact on the digital landscape. The recognition reflects e&'s dedication to driving digital innovation and connectivity, setting new standards, and contributing to the broader advancement of the industry. e& has evolved from a leading telecom operator into the fastest-growing tech brand in the Middle East and Africa (MEA) region. Its strategic expansion and presence across continents positions e&'s as a key global player in both telecom and technology sectors. By embracing cutting-edge technologies and deploying advanced tools and solutions, e& drives operational efficiency and effectiveness to deliver exceptional value to its customers. e& Carrier & Wholesale was also recognized in the 'Best Regional Data Center Operator' category for its SmartHub Data Centers, reflecting its commitment to innovation, connecting digital communities, and supporting its sustainability agenda. This combination of advanced technology, strategic locations, and a focus on security, efficiency, and connectivity makes SmartHub Data Centers a powerful asset for major hyper-scalers, content providers, CDNs, gaming platforms, financial service providers, and telcos in today's digital landscape.

e& Mulls €8bn European Expansion Via United Group Purchase

United Group owns telecoms operations in Serbia, Slovenia, Croatia, Bosnia & Herzegovina, Montenegro, Bulgaria, and Greece. According to anonymous sources speaking to Bloomberg, Abu Dhabi-based operator group e& is looking to expand into eastern Europe through the acquisition of international telco United Group. The sources say e& is evaluating a potential purchase, noting United Group's majority owners, BC Partners, would seek a valuation of the company of around $8 billion. United Group reportedly has Serbia, Slovenia, Croatia, Bosnia & Herzegovina, Montenegro, Bulgaria, and Greece. BC Partners are themselves already working with advisors to explore the sale of United Group, with a formal sale expected to be announced next month, according to the sources. Discussions remain in the early stages, with according to the sources suggesting that United could ultimately be sold piecemeal to multiple buyers. This is not e&'s first foray into Central and Eastern Europe. Last year, e& purchased a controlling stake in PPF Telecom, which has operations in Bulgaria, Hungary, Serbia and Slovakia. The stake, worth €2.15 billion, was e&'s first major investment in Europe, following an announced strategic shift to focus more heavily on the region, rather than their existing markets in Asia. e& also has a 14.6% stake in Vodafone Group, with its CEO Hatem Dowidar taking a place on the UK-headquartered group's board earlier this year. This stake has come under scrutiny from the UK government, however, with regulators worried that the stake represents a risk to the UK's national security.

e& Welcomes Cato Networks to SmartHub, Unlocking Next-Generation Connectivity and SASE Capabilities

e& has announced a strategic partnership during International Telecoms Week (ITW) in the United States with network security company, Cato Networks, marking a significant milestone that will establish a new Point-of-Presence (PoP) within the global technology group's SmartHub Data Centre. As one of the UAE's premier carrier-neutral data facilities, e&'s SmartHub will serve as a crucial platform for Cato Networks' business customers enabling them to access enhanced interconnectivity and Secure Access Service Edge (SASE) technology. Nabil Bacoucche, Group Chief Carrier & Wholesale Officer, e&, said: "We are excited to share our partnership with Cato Networks, which reflects our dedication to building a connected world that nurtures growth for both businesses and individuals. Leveraging our extensive network of strategically located data centers, we provide access to a significant portion of the global population through top-notch infrastructure. We are enthusiastic about supporting Cato Networks with a competitive advantage by seamlessly linking them to international digital networks." This collaboration is set to unlock numerous global interconnection opportunities for Cato Networks' customers. Customers will benefit from SmartHub's extensive ecosystem, which offers access to interconnected communities and ensures a broad reach to international markets. The integration into e&'s SmartHub will allow Cato Networks' customers to enjoy the advantages of reduced latency and superior connectivity performance, optimizing their global communications and data transfer capabilities. "Our partnership with e& provides organizations with unparalleled connectivity and a seamless network security stack, setting a new standard in flexibility and agility. Organizations require the efficiency and effectiveness of a cloud-native platform, delivering a comprehensive network and security infrastructure within minutes and hours. Cato is dedicated to supporting the Gulf region and recognizes the significance of collaborating with global leaders such as e& to deliver secure digital services in an ever-expanding interconnected world," said Kanwar Loyal, VP for Northern Europe & MEA. The robust infrastructure of SmartHub, embedded in submarine landing stations and terrestrial borders, connects the Middle East, Asia, and Europe, and serves as an ICT bridge between continents. Ensuring seamless connectivity and continuity across regions, SmartHub offers a community-based ecosystem encompassing reliable caching servers and edge nodes serving internet users, hyper-scalers, content delivery networks (CDNs), video streaming and gaming platforms, and financial services providers.

e& Carrier & Wholesale Connects to Equinix Fabric® in Frankfurt and Singapore Enabling Software-Defined Interconnectivity to Customers

e& Carrier & Wholesale customers can now benefit from Equinix's software-defined interconnection solution, Equinix Fabric® in Frankfurt and Singapore. This will enable connections between distributed infrastructure and digital ecosystems on Platform Equinix® in these metros and provide e& Carrier & Wholesale customers with a seamless, reliable, and highly flexible global network connectivity experience. Equinix Fabric® is a software-defined interconnection solution that offers access to Equinix's vast network of 260 International Business Exchange (IBX) data centers across 71 metros and 33 countries.

It extends service areas by enabling remote access to services from locations without a physical presence through global virtual access points. Additionally, Equinix Fabric® supports seamless data and application management via a reliable, software-defined network connecting multiple data centers. This is ideal for handling data, backups, and traffic spikes efficiently. In addition, Equinix Fabric® provides e& customers with access to scalable on-demand resources that enable them to adjust quickly to market demands without large upfront investments in infrastructure. With a strong footprint spanning across 32 countries covering multiple continents, e&'s access to Equinix Fabric® in Frankfurt and Singapore significantly contributes to its expansion strategy and further enhances its network capabilities and empowers customers to optimize their Wide Area Network (WAN) infrastructures, enabling efficient access and connections across a globally distributed infrastructure. Nabil Baccouche, Group Chief Carrier & Wholesale Officer at e&, said: "We are committed to simplifying connectivity and making business effortless for our customers. By leveraging Equinix Fabric® in Frankfurt and Singapore, we bring increased agility and reliability to enterprises, ensuring they are well-equipped to swiftly adapt to changing landscape. As a leading telecoms player in the UAE, a country with the highest fiber penetration in the world, we constantly strive to deliver innovative solutions that support our customers' growth ambitions in a digital-first world." e& operates one of the most advanced fiber backbone networks in the Middle East and Africa region and manages multiple subsea cable systems, driving the future of connectivity across the region and beyond. The company's Carrier & Wholesale division plays a vital role in this objective as the landing partner for the 2Africa subsea cable system in the UAE. This marks the nation's most extensive subsea cable system to date. Additionally, its collaborations with Batelco and Ooredoo further strengthen connectivity within the GCC through the Al Khaleej subsea cable and the Gulf Gateway Cable (GGC-1), respectively. These advancements, coupled with the launch of the region's first Smart Connect service and the expansion of e&'s Tier III SmartHub data center network to Abu Dhabi, demonstrate e& Carrier & Wholesale's dedication to providing businesses with flexible and scalable solutions. The partnership with Equinix further exemplifies this vision as it enhances e&'s robust digital infrastructure, setting a new standard for connectivity.

e& UAE Securely Unlocks the Transformative Power of AI for Businesses with Microsoft Copilot

e& UAE announced it will bring Copilot for Microsoft M365, the transformative AI tool, to small and medium-sized businesses (SMBs) and enterprises. Copilot is an AI-powered assistant that integrates with various Microsoft 365 applications, seamlessly boosting productivity, creativity, and overall workflow efficiency, while extending the data privacy and security of the Microsoft cloud. As a certified partner of Copilot for Microsoft M365 in the UAE, e& UAE offers businesses expert guidance, seamless integrations, and round-the-clock support, ensuring continuity. e& UAE offers a one-stop service, including the convenience of a single invoice and consultative sales support through its specialized team. Oscar Garcia, Senior Vice President of Business Marketing and Product Innovation, e& UAE, said: "We are committed to driving the growth and success of businesses across the UAE. Innovative solutions, such as Microsoft Copilot, are designed to accelerate their digital transformation, amplify employee productivity, and optimize operational efficiency. "Microsoft's Copilot for M365 is an AI-powered productivity tool that is set to revolutionize the way businesses operate. By harnessing the power of generative AI, Copilot empowers enterprises of all sizes and across multiple sectors to enhance their productivity and efficiency across a large number of use cases, from email management to meeting facilitation, learning and training, workflow simplification, accessibility enhancements among others." Additionally, workshops and webinars are being conducted in collaboration with Microsoft to demonstrate how Copilot can boost productivity and drive business success. Yvonne Chebib, Global Partner Solutions lead, Microsoft UAE, said: "AI tools like Microsoft Copilot can greatly enhance the productivity and efficiency of employees, but they also require the right skills and mindset to leverage them effectively. Business leaders need to adopt a more agile approach to skilling their workforce and enabling them to use AI in a strategic and secure way. Otherwise, they risk missing out on the full potential of AI and the benefits it can bring to their organization such as enhanced cybersecurity and data privacy." Microsoft's Copilot for M365 is an AI-powered productivity tool that streamlines workflow, document creation, and data analysis. It integrates with Word, Excel, Outlook, and Teams, and automates repetitive tasks, provides intelligent insights, and fosters collaboration. Copilot also captures and summarizes meeting minutes, provides personalized learning, and improves work quality and productivity. According to Microsoft, 77 per cent of employees did not want to give up using Copilot, showing its transformative impact in the modern workplace.

e& Leads as the Top Telecoms Employer Brand in Employer Brand Index 2024

e&, the global technology group, attained the highest position in Brand Finance's inaugural Employer Brand Report 2024 with its UAE entity ranking as the Top Global Telecoms Employer. The group also secured the 16th spot among the Top 20 Employer Brands across measured employer brands across financial services, telco, media, and tech (TMT), oil, gas, and energy, professional services, retail, automotive, and fast-moving consumer goods (FMCG) in Africa, Asia, Europe, and the United States. Ali Al Mansoori, Group Chief People Officer, e&, said: "This recognition as an employer of choice reflects the incredible dedication and passion of our people, who are our greatest assets. It also reaffirms our commitment to cultivating a unified company culture where every employee is empowered to think differently, experiment fearlessly, and innovate continuously. In rapidly evolving landscape, having a talented workforce is more critical than ever." David Haigh, CEO of Brand Finance, said: "Middle Eastern telecom brands are increasingly overtaking their European and American counterparts as desirable places to work. This reflects the career opportunities and exciting technological developments created by consistent, high-quality investment in the Middle East." Leading the way in employer branding and talent development in UAE, the group scored highly across several considerations, including as a 'prestigious brand,' an 'inspiring vision,' 'enjoyable and rewarding work,' and a 'well-managed and governed company.' e&'s achievement reflects the broader reputation of the UAE as a global talent hub and the preferred destination for people seeking to shape a prosperous future. "At e&, we are committed to equipping our team with the skills necessary to navigate and thrive in the digital age. Our vision is not just to keep pace with change, but to lead it. We are building a resilient, forward-thinking workforce capable of driving our company and our community towards greater heights. Our strategy includes comprehensive training programs, partnerships with educational institutions, and an environment that rewards creativity and bold thinking. We are dedicated to creating opportunities for professional growth and supporting our team as they develop the technological skills and mindset essential for the future," added Al Mansoori. The inaugural "Employer Brand Index" report showcases the world's top brands with global

and regional league tables. The research-driven study is the first of its kind, measuring internal and external perceptions of employer brands from 16 countries. The Index is derived from responses from an anonymous survey of the public across various industries conducted via independent online panels. The Brand Finance 2024 Employer Brand Index follows the release in January of the global brand rankings in which e& UAE was rated the strongest telecom brand globally (AAA rating) and the strongest brand in the Middle East and Africa (MEA) across all categories. Brand Finance is the world's leading brand valuation consultancy. For more than 25 years, it has been bridging the gap between marketing and finance by evaluating the strength of brands and quantifying their financial value to help organizations of all kinds make strategic decisions. Every year, Brand Finance conducts more than 5,000 brand valuations, supported by original market research, and publishes over 100 reports that rank brands across all sectors and countries.

Omantel Hosts the First Oman Chapter Meeting of Middle East Investor Relations Association (MEIRA)

Omantel, the leading provider of integrated telecommunication and ICT services in the Sultanate of Oman, hosted this year's first meeting of the Oman chapter of the Middle East Investor Relations Association (MEIRA), marking a significant milestone in its commitment to advancing Investor Relations (IR) practices within the region. This significant event, held for the first time at Omantel's headquarters, underscores the company's dedication to promoting transparency and best practices in investor relations. By facilitating this important meeting, Omantel not only reinforced its role as an industry leader but also demonstrated its commitment to boosting Oman's investment landscape. Ghassan Al Hashar, Chief Financial Officer (CFO) of Omantel, said: "Hosting the MEIRA Oman chapter meeting aligns with Omantel's strategic vision to lead by example in the realm of investor relations. Omantel strongly believes in the need to drive initiatives that foster a deeper understanding of the financial markets and create a more transparent dialogue

between companies and investors. We are extremely proud to host this meeting and network with organizations having similar focus on Investor Relations." Paolo Casamassima, Chief Executive Officer of MEIRA stated: "This Oman chapter meeting comes at a time when the regional capital markets are witnessing higher levels of maturity as well as global interest. We are confident this event will be a catalyst for greater networking among all MEIRA members, and that we can all benefit from learning about new trends in Investor Relations. We appreciate Omantel's role in hosting this important meeting." The meeting, facilitated by Omantel, brought together leading professionals and stakeholders from across the Middle East, comprising with more than 100 attendees, including 14 CFOs, 25 IROs, and a significant representation of local Analysts. Discussions focused on current IR trends, challenges, and strategies to elevate the overall investment framework within the region. The networking highlighted the crucial role of cross-regional knowledge exchange in enhancing the standards and practices of investor relations. The event began with a presentation by Omantel CFO Ghassan Al-Hashar on "The importance of the Investor Relations function in communicating with institutional investors" highlighting key aspects of "Omantel IR program and Equity Story."

The presentation also demonstrated how Investor Relations can foster transparency and communication and how effective IR practices, especially in ESG disclosures, can boost any company's international presence. Omantel's proactive approach in hosting the MEIRA meeting not only reflects its commitment to best IR practices but also its dedication to contributing to the economic prosperity of Oman. By leading such initiatives, Omantel supports the Muscat Stock Exchange in attracting more investors and elevating Oman's position as a key investment destination in the Middle East. Omantel has succeeded, through the integration of its operations, processes, and extensive expertise in the field of communications and digital technology, in establishing its position as a leading telecommunications company within the Sultanate of Oman and beyond. The company's innovative approaches have contributed to providing the latest solutions to various consumer and business sectors. The company aims to deliver an unparalleled, exceptional experience to its subscribers and strives to always exceed their expectations. Omantel works towards contributing to the achievement of Oman Vision 2040 objectives by investing in emerging technologies and providing cutting-edge solutions in modern technology, information and communications technology, such as cloud solutions, ICT solutions, AI, Smart solutions, cybersecurity, and much more, in addition to harnessing its technological capabilities to enhance innovation and leadership in new and advanced technologies.

Omantel Highlights Its Sustainability Role as a Digital Leader at the Oman Sustainability Week

Omantel, Oman's leading integrated ICT services provider participated in the Oman sustainability week and showcased the company's diverse initiatives toward sustainable practices, focused on achieving the company's mission of creating a greener world, developing societies, and providing an ideal work environment, in addition to contributing to the comprehensive development of the Sultanate of Oman. Omantel's positive sustainable practices were showcased at its pavilion at the Oman Sustainability Week which took place from 28 April to 2 May 2024 at the Oman Convention and Exhibition Centre, under the theme " Sustainable Living in a Circular Society" with the aim of highlighting the company's sustainability efforts. Omantel showcased the company's environmental and social performance, governance practices and deployment of digital technologies to create best practices for sustainability, which contribute to the alignment of the company's operations with international standards. Omantel highlighted its national initiatives towards community members, institutions and civil and charitable organizations. Omantel also aimed to conduct enriching dialogues with stakeholders and decision-makers in aspects related to sustainability and explored investment opportunities to find innovative initiatives and technical solutions that contribute to the development and improvement of practices and procedures related to sustainability. As part of Oman

Sustainability Week, Omantel was awarded with the Silver Award in the Environmental, Social, and Governance (ESG) Practices category during the Oman Sustainability Week Awards ceremony. Oman Sustainability Week is a major event on the national sustainability calendar designed to highlight the Sultanate of Oman's commitment to sustainability leadership through innovative strategies aligned with Oman Vision 2040, the UN Sustainable Development Goals (SDGs) and Net Zero Emission by 2050. The event engages the national development stakeholders to present Oman as a new model for sustainable development and to achieve the global target of Net Zero Emissions by 2050. Omantel has succeeded, through the integration of its operations, processes, and extensive expertise in the field of communications and digital technology, in establishing its position as a leading telecommunications company within the Sultanate of Oman and beyond. The company's innovative approaches have contributed to providing the latest solutions

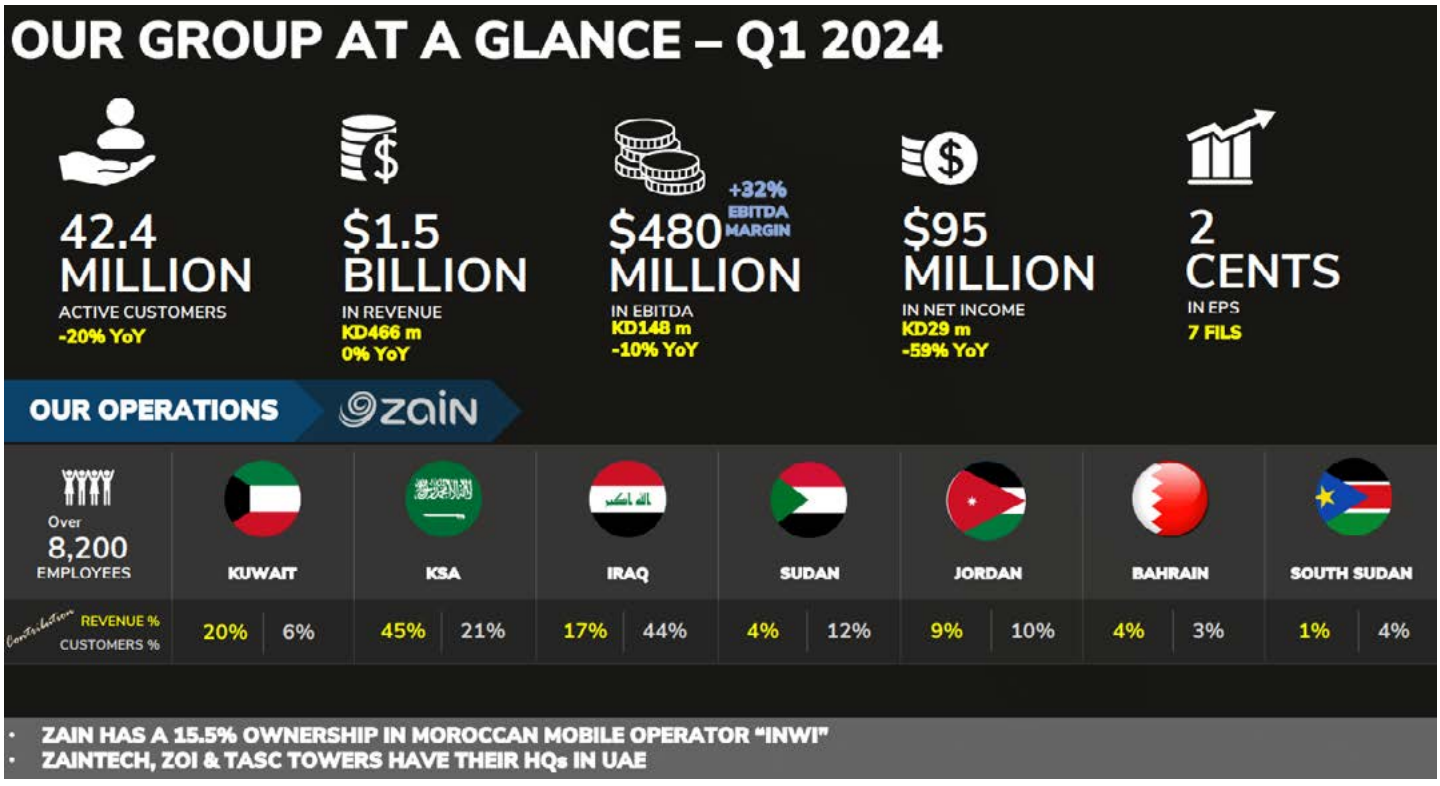
to various consumer and business sectors. The company aims to deliver an unparalleled, exceptional experience to its subscribers and strives to always exceed their expectations. Omantel works towards contributing to the achievement of Oman Vision 2040 objectives by investing in emerging technologies and providing cutting-edge solutions in modern technology, information and communications technology, such as cloud solutions, ICT solutions, AI, Smart solutions, cybersecurity, and much more, in addition to harnessing its technological capabilities to enhance innovation and leadership in new and advanced technologies.

Zain Group Reports Q1 2024 Revenue of US$1.5 billion (KD 466 million), Net Profit of US$95 million (KD 29.2 million)

Zain Group announces its consolidated financial results for the first quarter (Q1) ended March 31, 2024, with the company serving 42.4 million customers. Zain Group recorded stable consolidated Revenue of KD 466 million (USD 1.5 billion) for Q1 2024. EBITDA for the quarter reached KD 148 million (USD 480 million), reflecting an EBITDA margin of 32%. Net income for the quarter reached KD 29 million (USD 95 million), reflecting an Earnings Per Share of 7 Fils (USD 0.02).

Key Operational Notes for Q1 2024

1. Zain Group maintained stable revenue due to strong top-line performance across main operations including Iraq (+14%), Kuwait (+7%), KSA (+5%) and Jordan (+3%). This is despite the ongoing crisis and associated network operational challenges in Sudan where network services and coverage areas are gradually improving
2. Group customer base was significantly impacted by the Sudan crisis due to damaging military attacks on business operating systems, inaccessibility to customer data centers, limited network coverage and retail distribution challenges. Moreover, it is estimated that 6.5 million people have been internally displaced with 2 million migrating to neighboring countries. Nevertheless, the recovery plan and new data center is seeing an exponential uptake in customers in Q2 2024
3. The decrease in Q1 2024 net income compared to the restated Q1 2023 net income, is mainly due to a one-time gain on sale and leaseback of the Zain KSA tower transaction
4. The restatement of the Q1 2023 consolidated statement of profit and loss was due to the accounting of KSA tower transaction which was revisited in the Q4 2023 due to the significant judgements and estimations involved in assessing transfer of control. Excluding this impact of the restated KSA tower net profit gains, the drop in Q1 2024 Y-o-Y net income would be significantly less
5. There is no impact on Zain Group of above restatement and reclassifications on the net profit and the consolidated financial statement reported and issued as at 31 December 2023, as all necessary adjustments required have already been accounted for in the consolidated financial statements for the year ended 31 December 2023.
6. Data revenue grows 1% to reach USD 595 million, representing 39% of the Group's overall revenue
7. During the quarter, Group invested USD 39 million in CAPEX rolling out 5G and FTTH
8. Kuwait, KSA, Bahrain, and Jordan continue to grow their 5G customer bases
9. Fintech services Group-wide (Tamam in KSA, Zain Cash in Iraq and Jordan) report exponential growth as total reve-



nue grows 49%, with transaction value increasing 82% to reach USD 3 billion

10. Enterprise revenues witness healthy growth as ZainTECH reports five-fold increase in revenues and key market's B2B teams secure multiple deals with businesses and governments
11. Digital services including Dizlee API platform continue to witness revenue growth totaling 22%
12. Zain's digital operator Yaqoot in KSA, and oodi in Iraq evolve their product offerings as customer base continues to grow

Mr. Osamah Al Furaih, Chairman of the Board said, "The Board is working closely with executive management to address major socio-economic challenges in several key markets. In Sudan in particular, we acknowledge and pray for the safety of our dedicated workforce, who are making many personal sacrifices to provide meaningful connectivity to the local community. Zain Sudan is an important member of the Zain Group family and we will spare no efforts in supporting the team there to maintain the network and general operations." "Notwithstanding, we remain focused on mitigating the impact of the Sudan crisis through different Group-wide operational measures including cost optimization, network upgrades, driving enterprise revenues, and the development of new lucrative business verticals across our footprint. Moreover, our Environmental, Social and Governance practices continue to be at the forefront of our sustainability and business strategies." Mr. Bader Al-Kharafi, Zain Vice-Chairman and Group CEO commented, "Considering the excellent operational progress and digital transformation we have undertaken across our markets, it's unfortunate that exceptional circumstances and network challenges in Sudan severely impacted our financial performance and customer base. Nevertheless, we are pleased with the overall revenue growth across other key markets, and through our mitigation efforts, we are currently seeing improvements on multiple levels in Sudan from the many networks service availability and customer initiatives we are undertaking."

Zain Presented with Two Distinguished Awards in Sustainability and Gender Diversity

Zain, a leading provider of innovative technologies and digital lifestyle communications operating in seven markets across the Middle East and Africa, continues to be recognized for its leadership endeavors in the areas of Sustainability and Gender Diversity, in line with the UN's Sustainable Development Goals (SDGs). Zain was presented with the Leadership in SDGs Award 2023; and Championship Award in Women Empowerment 2024 at the 9th Annual Global Good Governance Awards organized by Cambridge IFA, a UK-based think tank. The Awards celebrate individuals, governments, public and private sector institutions, and NGOs that exhibit governance and sustainability as their strategic priority. Zain remains one of the most active organizations in the region with respect to delivering meaningful connectivity that leads to equitable systemic change through its Environmental, Social and Governance (ESG) initiatives, with the company playing a crucial role in empowering the markets in which it operates to reap the benefits of digital transformation for the benefit of

the communities it serves and beyond. The recognition of these prestigious awards is testament not only to how much Zain believes in its purpose, but how relentless the company is ensuring its operations are a positive, inclusive force for good, with a commitment to continuing to instill these principles at the heart of the organization.

SUSTAINABILITY

Zain Group's 2023 Sustainability Report (SR), marking its 13th annual sustainability report entitled 'The Pathway to Value Creation' reflects the company's progress and efforts to address deficits and challenges across its footprint while providing Meaningful Connectivity that leads to Equitable Systemic Change through the UN's Sustainable Development Goals. The report demonstrates how the company addresses its social, economic, environmental, and human rights related impacts and how Zain continues to execute on its five-year, 2025 corporate sustainability strategy aiming to deliver meaningful and sustainable value across Zain's operating companies and beyond. In 2023, Zain joined the United Nations (UN) Global Compact initiative, a voluntary leadership platform for the development, implementation, and disclosure of responsible business practices as well as committing to the Science-Based Targets Initiative (SBTi) emission. Notably, the A-score that Zain maintained in the latest 'CDP Score Report–Climate Change 2023', positioned the company first in the region and among leaders globally with respect to climate action initiatives.

Gender Diversity (WE)

Zain has been actively working on narrowing the gender divide in leadership roles at the company. Under its Diversity, Equity and Inclusion women empowerment (WE) pillar, Zain Group has been a pioneering force for women empowerment regionally since 2017. This gender diversity initiative was created at a time when only 14.5% of Zain's leadership comprised of women, and a target was set to increase this percentage of women leadership to 25% by 2025. Three Zain operations have already achieved their WE leadership targets in 2023, Zain Jordan at 27.3%, UAE based ZainTECH at 27.0%, and Zain Kuwait at 26.9%. For some time now, women have represented the higher proportion of university graduates in the region, yet this does not translate into positions within the workforce, let alone senior positions. Hence, the issue of women's empowerment is an important topic for Zain, which has embedded this issue into the DNA and heart of the company's corporate strategy. During 2023, women made up over 33% of Zain's total recruitment, and the company recently revolutionized its staff-friendly Family Leave Policy clauses, reinforcing its position as one of the most impactful DEI organizations in the region, if not the world.

Accenture Announces Intent to Acquire Fibermind to Strengthen Fiber and Mobile 5G Network Services

Accenture has agreed to acquire Fibermind, an Italy-based network services company, specializing in fiber and mobile 5G networks deployment, as well as infrastructure engineering services. The acquisition will strengthen Accenture's capabilities in the domain and extend network services to clients across multiple industries, including telecommunications, utilities, and transportation. Headquartered in Rovigo, Italy, with operations throughout the country, Fibermind has more than 20 years of experience serving public and private sector clients, a strong partner ecosystem and long-standing relationships with national authorities and municipalities. Fibermind also has well-established client relationships with Italy's major mobile and fiber network operators. "The acquisition of Fibermind reaffirms Accenture's commitment to continuously invest in strategic acquisitions that support and accelerate our clients' transformations across key industry sectors in Italy," said Mauro Macchi, president and CEO of Accenture in Italy. "As a result of the acquisition, we will expand our capabilities to offer end-to-end network engineering services, delivering higher quality, greater innovation, and more rigorous cost management to our clients." Fibermind will bring more than 400 highly qualified professionals to Accenture Operations, with expertise spanning network design, permits

management, technical office and local directive project management office (PMO) work, network acceptance testing, network documentation and home connection. “This acquisition will significantly strengthen our expertise in the telecommunications network engineering services, boosting our growth in a strategic sector for the country,” said Roberto Pagella, who leads Accenture Operations in Italy. “The synergies with Fibermind will allow us to create a center of excellence in engineering services where technology and data enhance and amplify human skills and knowledge.” Together, Accenture and Fibermind will offer clients network engineering capabilities, deep industry knowledge, and technology assets powered by automation, robotics, data and AI.

AT&T and Cisco Introduce a Simpler Way to Deploy 5G Fixed Wireless Access for Businesses

Cisco and AT&T announced a new digital buying experience that makes it faster and easier for businesses everywhere to take advantage of 5G Fixed Wireless Access (FWA). For businesses looking to quickly extend connectivity across diverse campus and branch office environments, Cisco’s newest line of cellular gateways, the Meraki MG52 and MG52E, are the first true-5G, Standalone (SA) capable, discreet FWA devices to offer cloud-managed eSIM technology powered by Cisco IoT Control Center. Available this summer, the new devices are paired exclusively with an integrated wireless WAN service experience and zero-touch, instant-on provisioning from AT&T, customers can simply plug the device into power and provision AT&T's 5G connectivity through the Cisco Meraki dashboard. The new Cisco cloud-managed FWA devices can scale robust, always-on, highly secure 5G connected experiences nationwide* making it simpler for businesses to take advantage of:

Increased operational efficiency with scalable and flexible management

Minimized downtime and disruptions with seamless, resilient network performance

Greater return on investment with long-lasting, durably designed FWA devices

Flexibility to deploy in difficult-to-reach locations

Ability to deploy branch sites within minutes with instant-on, built-in AT&T 5G connectivity With a complimentary 30-day introductory period, businesses can reduce deployment times for branch connectivity through self-service purchasing of AT&T data plans directly from the Cisco Meraki dashboard. Instant-on data from AT&T will also allow for immediate provisioning of full-stack Cisco networks to accelerate “day zero” operations. "Together with Cisco, we are making it faster and easier than ever for companies to reimagine their networks and conduct business with next-level connectivity,” said Mike Troiano, Senior Vice President, Product and Pricing, AT&T Business. “This offer is yet another way we are demonstrating our commitment to simplifying business challenges and enhancing the end user experience.” “As businesses continue to digitize their operations and connect more people, places, and things to the network, digital resiliency will continue to rise in importance,” said Jonathan Davidson, Executive Vice President and General Manager, Cisco Networking. “AT&T and Cisco share a vision to help businesses simplify operations so they can spend less time worrying about connectivity and security and focus on delivering unified experiences their customers can rely on.”

AT&T Makes Case Against Keeping Copper

AT&T network chief Chris Sambar outlined the operator's case for retiring copper lines in some US states and replacing them with fiber during a forum the company hosted in Washington DC. Sambar, head of network for AT&T, stated the regulatory framework for retiring copper lines varies across the US. The operator applied for a waiver in February that would allow it to stop servicing copper-based POTS in California, resulting in opposition from residents. AT&T is a carrier of last resort (COLR) in states such as California, which means it must get permission to retire its copper-based landline service. On 10 May, the California Public Utilities Commission (CPUC) issued a proposal rejecting AT&T's request to withdraw as the COLR. That proposal will be voted on by the commission at its 20 June meeting. AT&T, Verizon and additional operators have retired copper lines across several states, but Sambar noted there is a web of regulatory challenges that providers are dealing with. "In the telecom space, you've got a really old regulatory regime that was founded back when the government was subsidizing and helping us build these networks," he explained. "But those old regulatory rules aren't serving the public good anymore". Sambar noted some of the copper lines are 100 years old. Each copper line sheathed in paper is susceptible to moisture issues. Whereas it takes AT&T six to eight hours to fix a fibre-related issue, it can take several weeks to dry out the copper lines. In addition to paper, some of the copper lines are encased in lead. He stated it can cost just below $10 billion a year to maintain the copper lines. While copper lines account for just 5 per cent of networks in the US, Sambar noted a single copper line must be maintained all the way out to a customer's location. There could be thousands of copper lines sheathed at a central office, which need to be maintained to serve the customer who is miles away with the single line. The copper lines also require massive switches in central offices to provide voice services, which Sambar explained use eight to ten times the amount of energy as a server. AT&T could replace the switches with two servers in a central office, which would cut down on the energy cost, but the servers will need software, installation and rewriting all the systems that were written in the 1960s or 1970s. All of which will cost more than keeping the switches. "The payback period is 15, 16, 18 years long so it's not economical to do it," Sambar said. The executive explained AT&T has tried to incentivize POTS users by offering them free iPhones and a free year of service, but to no avail. "It's amazing that people want to hold on to the old stuff," he stated. He noted Apple wasn't required to keep building the first computer it launched in 1984 and Amazon was allowed to shutter its brick-and-mortar stores in favor of putting books online. "We spend billions of dollars on an old copper network. We would love to take that billions of dollars and allocate it over to fiber to build even more fiber than we're building," he stated.

AT&T's Dynamic Defense Supports Omnicom in Effective Cyber Threat Mitigation

In the fast-paced world of digital business, staying head of cyber threats is a constant challenge for businesses big and small. The collaboration between AT&T and its business customers showcases how forward-thinking solutions can not only anticipate but also neutralize potential threats before they materialize. This is the story of how one such partnership at Omnicom, a leading marketing firm, put AT&T's Dynamic Defense to the ultimate test. Not long ago, Omnicom, with its proactive stance on cybersecurity, employed AT&T's Dynamic Defense, a pioneering solution available with AT&T Dedicated Internet and embedded directly into our network. Rather than a story of a threat that was, this is a celebration of a potential crisis averted – showcasing the importance of readiness and the value of innovative cyber solutions. AT&T Dynamic Defense is designed to function as a digital shield, adding an extra layer of protection for businesses. When the malicious actor targeted Omnicom, Dynamic Defense was there to stop it dead in its tracks. This was not just a win for Omnicom, it was proof of Dynamic Defense's capability to protect businesses against emerging threats. So, what makes Dynamic Dense stand out? It is not just another security tool. It is an integrated solution that operates within the AT&T network, providing a robust barrier against potential threats. Its efficiency is

remarkable, capable of blocking millions of threat events in a single day. For Omnicom, Dynamic Defense turned a potentially damaging situation into a testament to the strength of their defenses. To understand the impact of Dynamic Defense, consider the scale of AT&T's network. We manage an astounding 680 petabytes of data on average day on AT&T's global network – this is equivalent to roughly 2.5 million mobile phones with 256 GB of storage each. With this unprecedented visibility, AT&T is able to generate industry leading threat intelligence, not only to protect our infrastructure, but to protect our customers. The Dynamic Defense customer portal helps customers analyze and intercept malicious traffic, ensuring businesses are protected. Omnicom's experience with Dynamic Defense goes beyond mitigating a cyber threat. It was more about how seamlessly the solution integrated into their existing communications solution, enhancing their security without complicating their operations. This collaboration underscores our commitment to innovation and customer-centric solutions. As Dynamic Defense rolls out nationwide, we are not just offering a product, we are providing peace of mind. Our journey with Omnicom is just the beginning. Whether it is helping a major sports franchise protect their operations, a hospital keep sensitive patient data secure, or a marketing firm safeguard its creative assets, Dynamic Defense is proving to be an indispensable ally in the fight against cyber threats.

AT&T, AST SpaceMobile Draw Closer to Sat-to-Phone Launch

US operator AT&T struck a deal with AST SpaceMobile to provide what they claim will be the first full space-based broadband service direct to common mobile phones, although a launch date was not specified. The six-year agreement replaces the pair's previous memorandum of understanding (MoU) signed in 2020. AT&T is also a strategic investor in the direct-to-device satellite player (a "$20 million revenue commitment", according to an AST SpaceMobile investor presentation last month) alongside Google and Vodafone Group. The trio have invested a total of $110 million of ten-year subordinated convertible notes. In addition to AT&T, AST SpaceMobile is collaborating with Rakuten Mobile, Rogers Communications, Orange, Vodafone and American Tower to address internet connectivity gaps, but the US operator is the only commercial agreement to date. A representative for AT&T told Mobile World Live (MWL) it is too early to give a specific date for when the service will be available, but now there is a formal agreement in place "we'll be working towards commercial launch". The representative told MWL the service is designed to integrate with the operator's wireless network and "when needed, fill coverage gaps in remote and otherwise off-grid locations by connecting with our customers' existing devices". In its Q1 earnings report, released yesterday (15 May), AST SpaceMobile stated its first five satellites will enable a nationwide, non-continuous service across the US with more than 5,600 cells in premium low-band spectrum. The company previously

targeted Q1 2024 for the launch of five of its low-earth orbit BlueWalker 3 satellites, but AST SpaceMobile CEO Abel Avellan stated on the earnings call it will move those birds to the launch site between July and August, with launches to occur shortly thereafter. It will take several months for the birds to reach the correct orbit. AST SpaceMobile expects to spend $150 million on the first five birds, with more than 95 per cent expended to date. For the next two quarters, it will spend approximately $25 million to $40 million on capex. While some of AST SpaceMobile's rivals have launched SMS or emergency messaging, Avellan stated the work with AT&T will enable text, voice and streaming on the broadband service across a range of tariffs. "We believe there is a significant part of the population that will be willing to pay for the service," he explained. "They move in and out of connectivity in the US, so we have a multitude of packages". Chris Sambar, head of network for AT&T, will be appointed to the satellite provider's board of directors in the coming months. In 2023, AT&T agreed to lease spectrum to the non-terrestrial network specialist to further its plan to enable communication with standard mobile phones. AST SpaceMobile faces stiff competition from other direct-to-device service providers including Lynk Global, Starlink and Amazon's Project Kuiper.

Avaya Celebrates Excellence in Customer Experience with Canadian Partner of The Year Awards

Avaya, a global leader in enterprise CX, announced the recipients of its Canadian Partner of the Year Awards, recognizing outstanding collaboration, contribution, and commitment to CX innovation. The awards celebrate leaders across five categories: Canada Partner of the Year, Canada Growth Partner of the Year, Canada Mid-market Partner of the Year, Canada Growth Mid-market Partner of the Year, and Canada Retention Partner of the Year. These awards honor the ecosystem of partners who deliver exceptional CX solutions with innovation, ingenuity, and impactful results. Avaya partners are chosen based on their ability to provide value and expertise through complete solutions that enable organizations to deliver innovation without disruption. "We are thrilled to recognize our Canadian partners who have consistently demonstrated excellence in delivering top-notch customer experiences," said Ian Purdell-Lewis, Vice President, Avaya Canada Channel, Avaya. "Our partners leverage Avaya's flexible CX solutions to give customers the freedom to tailor their technology path—be it cloud-based, hybrid, or on-premises. Together, we are pushing the boundaries of innovation and setting new standards in customer engagement."

Here is a list of the winners and category for which they were honored:

- Canada Partner of the Year: TELUS
- Canada Growth Partner of the Year: Netagen

- Canada Mid-market Partner of the Year: Network Telecom
- Canada Growth Mid-Market Partner of the Year: Minitel Communications
- Canada Retention Partner of the Year: Connex Telecommunications

This year's winners of the Partner of the Year awards were recognized recently at Avaya ENGAGE®, the premier event where CX-savvy customers converge to discover how Avaya and its global ecosystem of partners empower organizations to engage customers and employees for maximum value, offering diverse pathways to drive business momentum.

China Mobile and Global Mobile Operators Explore Pathways to a More Intelligent Future at Global Partnership Executive Conference

China Mobile held the Global Partnership Executive Conference under the Hand-in-Hand Program (hi-H Program) with the theme of "Hand-in-Hand, Leap Forward in Intelligent Future" on 25 June during MWC Shanghai 2024. The conference was attended by 78 operators from over 30 countries and regions, with more than 300 executive and industrial experts. It featured keynote speeches, a fireside chat, roundtable discussions, and a launch ceremony, reflecting a new chapter of cooperation with international operator partners. Mr. Gao Tongqing, Executive Vice President of China Mobile, attended the conference and delivered a speech. Mr. Gao Tongqing stated that China Mobile is actively promoting cooperation with overseas operators, building high-quality capabilities, and empowering global partners each other. Firstly, China Mobile is continuously building digital intelligent infrastructure. It has more than 1.9 million 5G base stations, with nearly 800 million 5G package users and serving more than 25 million industry customers and over 30,000 5G commercial users, while accelerating the development of innovative products. Secondly, China Mobile promotes the integration of AI into the businesses and has developed the "Jiutian Zhongqing" foundation model, which has been deployed in more than 10,000 "AI+" projects

across dozens of industries. Thirdly, China Mobile is actively advancing digital intelligent capabilities for global partners, providing high quality products and empowering partners in areas such as 5G private networks and industry applications, to create shared success. The keynote addresses delivered by China Mobile, Orange Wholesale International, Singtel, e& and TIM Brasil provided a powerful vision for the transformation required for the telecoms industries to thrive in the hyper-connected, technology-driven landscape. Emmanuel Rochas, CEO of Orange Wholesale International, set the tone by emphasizing the critical importance of forging strategic partnerships and collaborative ecosystems. He asserted, "Strategic collaboration has become crucial for traditional carriers in fast-paced business environment. By drawing on the expertise of partners from diverse industries, operators can stay ahead of new technologies, adapt to evolving markets and effectively serve their customers high expectation towards connectivity services – achieving significant business impact." Echoing this sentiment, Anna Yip, Deputy CEO of Singtel Singapore, underscored the pivotal role that the telecommunications sector plays in enabling the emergence of new strategic industries through the transformative power of 5G and AI. She stated, "The telecom industry plays a pivotal role in the emergence of new strategic industries based on transformative technologies like 5G and artificial intelligence. By forging impactful partnerships, we unlock new opportunities for businesses and help economies and communities tackle complex global challenges." "As customer expectations continue to rapidly evolve in our digital-first world, organizations must undergo profound transformations to stay competitive and deliver exceptional experiences," said Rashid Ali Al Ali, Senior Vice President International Data of e&. "By embedding a true customer-centric mindset into our business strategy, operations, and culture, we are able to anticipate and meet the changing needs of our customers, driving sustainable growth for our company." Alberto Griselli, CEO of TIM Brasil, further explored how telecom operators can expand beyond connectivity-centric offerings to unlock new revenue streams and transform the future. "Developing innovative, value-added solutions that address evolving customer needs and pain points will position telcos as key enablers of the digital economy. Promoting digital transformation, we have an opportunity to contribute to building a more inclusive and diverse society and moving towards a more circular, low-carbon future," he said. Under the theme "Collaborate to Innovate, Shape the Intelligent Future" leading telecom operators from around the world gathered for an exclusive ceremony to celebrate their shared commitment to "Going Global". This prestigious event featured distinguished guests from companies such as e&, Singtel, TIM Brasil, CTM, and SmarTone to strengthen existing partnership and forge new alliances that will shape the intelligent future of telecommunications. With a vision to chart the course for the future of international partnerships, through this event, China Mobile aims to infuse new energy into the global telecom ecosystem and showcase the power of collaboration in leaping forward in the intelligent future.

Cisco Launches $1bn Fund for AI Startups

Cisco has announced that it has launched a $1 billion fund to invest in AI startups in a push to become more dominant in the AI sphere. At the company's "Cisco Live" event in Las Vegas, CEO Chuck Robbins said that despite a billion-dollar investment being considered small in the AI world, "part of our investment thesis is that there are unique co-development activities that we can enter into with [startups] to bring you more innovative solutions and help you navigate the AI transition." The firm also say that the investment aligns with the company strategy "to connect and protect the AI era." According to the press release, related investments in more established AI companies have already begun, with almost $200 million having been invested in companies including:

– Mistral AI, which specializes in generative artificial intelligence
– Scale AI, which provides end-to-end platform providing training and validation for AI applications
– Cohere, which provides security-focused frontier large language models (LLMs) for businesses

"At Cisco, we believe we are well positioned to be the best strategic partner for our customers in the AI era as they look to build, secure, and power AI," said Mark Patterson, Cisco's Chief Strategy Officer. "In addition to building essential technology to connect, secure and advance AI, Cisco is committed to investing in the broader AI ecosystem to more effectively meet our customers' needs," he continued. The company are not just investing in startups, but partnering with larger firms too. Again, at the "Cisco Live" event in Las Vegas, the two companies announced an AI cluster solution the data center that "transforms how customers build, manage and optimize infrastructure and software." The companies say that it is designed so that customers can focus on AI innovations and new revenue streams instead of IT management.

Cisco and Splunk Announce Integrated Full-Stack Observability Experience for the Enterprise

Cisco unveiled the first of its innovative integrations with Splunk, a Cisco company, as the organizations combine their market-leading observability technologies to accelerate full-stack observability for the entire enterprise, helping customers deliver more performant and secure digital experiences. Through the full-stack observability journey, organizations can unlock unified visibility across any environment (on-premises, hybrid and multi cloud) and any stack while harnessing powerful real-time analytics for faster, more accurate detection, investigation and response. Building on the recent landmark acquisition, Cisco and Spunk announced new integrations including a unified observability experience for joint customers, and the introduction of Splunk Log Observer Connect for Cisco AppDynamics and Cisco AppDynamics integration with Splunk IT Service Intelligence (ITSI). Now with Cisco's unparalleled visibility into the network and any environment, coupled with Splunk's industry-defining log analytics and cloud native observability capabilities, customers can instrument their entire business and reduce blind spots. New full-stack observability innovations were also announced, including a new AI Assistant for AppDynamics which delivers meaningful guidance and insights, and empowers users to make informed decisions faster and more accurately than ever before, as well as expanded AppDynamics Software-as-a-Service (SaaS) hosting on Microsoft Azure. In addition, new Advanced AI in Splunk IT Service Intelligence (ITSI) was unveiled, which leverages advanced AI and machine learning capabilities to provide IT teams more precise alerting and a more accurate view into IT health. Through Cisco and Splunk's new integrations and innovations, customers gain unified visibility across their entire digital footprint, including both owned and unowned networks. The observability experience helps meet customers' unique IT environment needs by providing support for on-premises, hybrid and multi cloud environments. "By bringing together Splunk and Cisco observability solutions, customers now have unified visibility across their entire digital footprint so they can detect, investigate and resolve problems faster to create a reliable, resilient experience for their users," said Tom Casey, SVP and GM, Products & Technology, Splunk. "Having full control over their data helps them make more targeted, effective and smarter investments in their digital systems and services, allowing them to better leverage their entire digital footprint to attract more business and grow the company."

Cisco Announces New AI-Powered Innovations and Investments to Help Customers Unlock a More Connected and Secure Future

Cisco kicked off Cisco LIVE 2024 with new AI-powered innovations and investments that deliver a clear message: AI isn't just the latest turning point in technology. It's an efficient, intelligent source of digital resilience that can connect and protect entire organizations and power growth, scale, and an inclusive future for all. At its premier networking and security event, Cisco is launching AI-enriched networking, security, and observability solutions across its entire portfolio. These are designed to give customers the visibility and insights they need to connect and protect their entire digital footprint and build digital resilience. "We're thrilled to share incredible innovation and new AI-powered capabilities for our customers at Cisco Live," said Chuck Robbins, Chair and CEO of Cisco. "Cisco is uniquely positioned to revolutionize the way infrastructure and data connect and protect organizations of all sizes, and we are confident we are the right strategic partner for our customers in this era of AI." Cisco Investments also announced a $1B global investment fund to expand and develop secure and reliable AI solutions. Cisco is making strategic investments in Cohere, Mistral AI, and Sale AI that will advance several critical areas including customer readiness, compute infrastructure, foundational models, model development, and training.

Cisco is Delivering on Platform Strategy with Rapid Innovation Across Cisco Security Cloud

Cisco, the leader in enterprise networking and security, announced new industry shaping innovations across the Cisco Security Cloud to both power and protect the AI revolution. The new capabilities across Cisco's unified, AI-driven, cross-domain security platform help companies better protect their applications, devices, users and data as well as detect, respond and recover faster from incidents. Securing complex, hyper-distributed digital landscape can no longer be done at human scale, as attacks become more sophisticated and nearly 90 percent of companies around the world say shortage of cybersecurity talent is a real issue, according to Cisco's 2024 Cybersecurity Readiness Index. Organizations need to rethink security by building natively with AI and challenging long held conventions to tip the advantage in favor of the defenders.

"At the RSA Conference last year, we delivered enhanced customer efficacy and economics through a true platform approach to security with the Cisco Security Cloud. By minimizing point-solutions, customers have realized better end-to-end visibility, uncovered actionable intelligence and automation with AI and simplified management with Cisco's unified security infrastructure," said Jeetu Patel, Executive Vice President and General Manager for Security and Collaboration at Cisco. "Since then, our security momentum continues to accelerate. With 'zero to one' innovation like Cisco Hypershield and strategic acquisitions like Splunk and Isovalent, the power of Cisco's security platform is supercharged and unmatched."

Cisco is helping customers defend against the entire attack chain – from detecting and blocking not just known, but also unknown vulnerabilities with Cisco Hypershield, to stopping the increasing barrage of identity attacks with Cisco Duo, and reimagining the security operations center (SOC) with Splunk for security analysts to move faster and make more informed decisions with contextual insights and automated workflows.

Advancing the Vision of the SOC of the Future

To thrive in the new digital era, organizations need to connect and protect all that they do.

The combination of Cisco and Splunk is the most comprehensive security solution for threat prevention, detection, investigation and response for organizations of any size, utilizing cloud, endpoint traffic - along with Cisco's unmatched network footprint - for unparalleled visibility. As Cisco and Splunk converge these platforms, there are many opportunities to advance security operations including:

- Integrating Cisco Extended Detection & Response (XDR) with Splunk Enterprise Security (ES): Seamlessly feed high-fidelity alerts and detections from Cisco XDR, purpose-built to detect most common attacks such as ransomware and lateral movement, into Splunk ES to accelerate investigation and remediation. The integration allows organizations to utilize the strength of each solution to create a more comprehensive defense strategy that will improve digital resilience.
- Splunk Asset and Risk Intelligence: A critical solution for the SOC of the future, designed to revolutionize proactive risk mitigation through continuous asset discovery and compliance monitoring. This addresses a pressing need for security teams, as they can't protect what they can't see.
- Cisco AI Assistant for Security in XDR: Cisco's unified AI Assistant for Security is now available in Cisco XDR – one year after Cisco shared its vision for reimagining the security analyst experience with AI on-stage at RSAC 2023. The AI Assistant in XDR empowers security analysts of all skill levels to make faster, more informed decisions about evolving threats by offering contextual insights, guided responses, recommended actions and automated workflows.
- New Cloud Detection and Response Capabilities: Cisco's Panoptica cloud native application protection platform (CNAPP) now harnesses AI and ML to detect and alert security teams to emerging threats within cloud applications in real-time, while GenAI Dynamic Remediation allows teams to resolve issues quickly by providing prescriptive guidance. The new Search Graph Query feature enables granular query and graph visualizations across multi-cloud environments to allow for deeper investigation into cloud security posture to reduce exposure.

"The XDR market is broad, one that includes many companies that promise to deliver a more complete view of the security stack beyond the endpoint. In doing so, XDR aims to detect cybersecurity threats across multiple domains," said Will Townsend, VP & Principal Analyst, Moor Insights. "Observability is key, and with its successful acquisition of Splunk, Cisco is poised to enhance its XDR solution launched one year ago, now adding AI, unified threat detection, investigation, response and transformation capabilities aimed at enhancing security operations."

"At Optiv, we provide our clients the essential security expertise and solutions they need with an integrated approach that spans the entirety of their cybersecurity journey, all with a focus on accelerating

their business outcomes," said John Hurley, Chief Revenue Officer, Optiv. "Cisco's integrated AI-driven platform, the Cisco Security Cloud, is a solution that helps reduce complexity. The integration of Cisco XDR and Splunk Enterprise Security will enable our clients to operate efficiently while making informed decisions on how to bolster their cyber resiliency in evolving threat landscape."

Protections From Unknown Vulnerabilities with Cisco Hypershield for the AI-Scale Data Center

In attack landscape, the time from vulnerability to exploit is shrinking - and defending against the increasingly sophisticated, complex threats in data centers is beyond human scale. Unfortunately, not all vulnerabilities are known. Building on last month's launch of Cisco Hypershield with Distributed Exploit Protection protecting against known vulnerabilities (e.g. CVEs), Cisco is now introducing capabilities to detect and block attacks stemming from unknown vulnerabilities within runtime workload environments. In addition, suspected workloads can be isolated to limit the vulnerability's blast radius. Cisco Hypershield is a radically new approach to securing data centers and clouds in response to the increasing demands the AI revolution has put on IT infrastructure. Cisco Hypershield protects applications, devices and data across public and private data centers, clouds and physical locations - anywhere customers need it. Designed and built with AI in mind from the start, Hypershield enables organizations to achieve security outcomes beyond what has been possible with humans alone.

Frictionless User Protection with Continuous Identity Security

With the rise in identity-based attacks, security solutions must evolve from just asking 'can' a user access an application. Instead, they need to continuously assess whether a user 'should' be able to do what they are doing – and do so without creating friction for the user. Continuing momentum since the recent launch of Cisco Identity Intelligence, Cisco is bringing together phishing-resistant capabilities in Duo to realize its vision for Continuous Identity Security – stopping identity attacks while simultaneously delivering a simpler, more seamless user experience.

- Eliminate Authentication Fatigue with Duo Passport: Minimize repeated authentication requests to provide interruption-free access to everything a workforce needs without compromising security using Duo Passport, a major leap forward in user experience.
- Cisco Identity Intelligence in Duo: Leverage powerful AI-driven analytics to strengthen posture across your workforce identity infrastructure and to assess and respond to identity risk before, during and after login. Now in limited availability, this addition enables customers to implement Continuous Identity Security that reduces security gaps and addresses most common cyber threat.

"Cisco Duo is advancing past its core access management functions, incorporating identity enrichment from Cisco Identity Intelligence and introducing a streamlined access experience with Duo Passport," said Todd Thiemann, Senior Analyst, Enterprise Strategy Group. "This evolution leads to Continuous Identity Security, where access adapts in real-time to the associated risk, crucial in threat landscape where identity-based attacks are on the rise Cisco Duo's commitment to dynamic response to risk, coupled with an emphasis on seamless user experience, is not just timely-it's groundbreaking."

Eutelsat Releases Third Quarter and Nine-Month 2023-24 Revenues

Eutelsat Communications (ISIN: FR0010221234 - Euronext Paris / London Stock Exchange: ETL) reports revenues for the Third Quarter and Nine Months ended 31 March 2024.

HIGHLIGHTS

- Third Quarter and Nine-month revenues in line with expectations.
- Video in line with overall market trend of mid-single digit decline; base effect of non¬renewal of Digitürk contract and Russian sanctions washed through from Q3.
- Double-digit growth in Connectivity (Government Services: +22.1%; Mobile Connectivity: +48.0%; and Fixed Connectivity: +24.2%), driven by incremental GEO capacity and LEO.
- All Full Year 2023-24 financial objectives confirmed.
- Successful launch of EUTELSAT 36D satellite, assuring service continuity with optimized performance for video customers at the 36° East orbital position.
- Major $500m commercial deal with Intelsat for capacity on OneWeb LEO constellation.
- OneWeb ground network roll-out on track.
- Refinancing of November 2025 bond completed.

Eutelsat Group and InterSAT Aim to Enhance Remote African Coverage

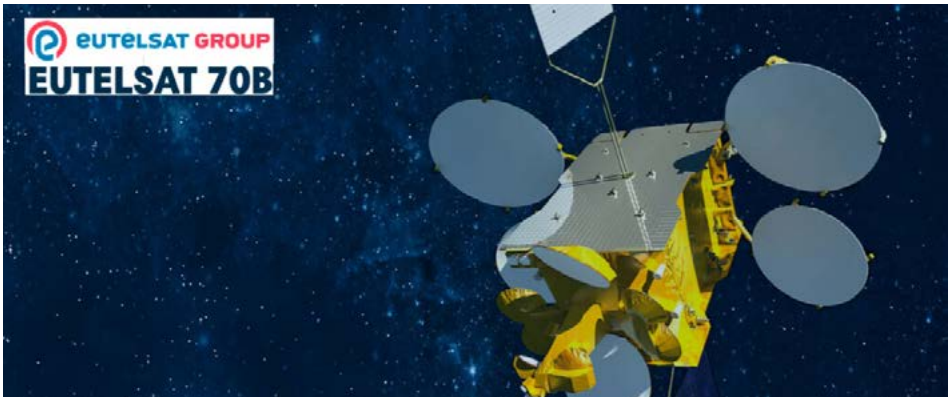
Satellite communications company Eutelsat Group says it has extended its partnership with InterSAT, one of Africa's leading satellite service providers, to support InterSAT's growth in the pan-African enterprise and retail segments. Under the latest multi-year strategic deal, InterSAT says it will add Ku-Band capacity over Central and Eastern Africa on Eutelsat's Eutelsat 70B satellite to its current portfolio which already includes Ka-Band capacity on the Eutelsat Konnect satellite. Located at the 70.5° East orbital position, Eutelsat 70B offers a broad wide beam coverage and four high-performance fixed beams, with a high degree of on-board connectivity. As the partners point out, the deal highlights the role of VSAT services delivered through powerful, geostationary capacity to reach remote areas as Hanif Kassam, Chief Executive Officer of InterSAT explains: "Leveraging our VSAT service expertise and our teleport infrastructure, we are able to use satellite communication to deliver reliable and cost-effective connectivity to remote and underserved areas while assuring a high-end user experience for our customers." Ghassan Murat, Eutelsat's RVP of the AMEA region adds: "The growth of VSAT services in Africa is a testament to the potential of this technology to transform the continent's ICT landscape, connecting more people and businesses than ever before, as well as the ongoing relevance of our powerful geostationary in-orbit assets to deliver a compelling and reliable connectivity service to the remotest areas." This is the second Africa-related announcement from Eutelsat in only a few days. Eutelsat Group and YahClick, the data solutions arm of UAE-based Yahsat, have signed a multi-year, multi-Gbps contract under which Yahsat will lease capacity from the Eutelsat Konnect satellite to extend YahClick's service coverage, particularly to Ethiopia.

Eutelsat is Said to Weigh Sale of Ground Station Network

Eutelsat is exploring options for its ground station network, including a sale, that could value the portfolio at more than €800 million ($850 million), according to people familiar with the matter. The company is working with advisers to seek a buyer for the assets, said the people, who asked not to be identified because they weren't authorized to speak publicly. The unit is drawing interest from infrastructure investment firms, the people said. No final decisions have been made and Paris-based Eutelsat may elect to keep the business, the people said. A representative for Eutelsat declined to comment. The divestment would be the latest strategic move by Eutelsat under Chief Executive Officer Eva Merete Sofelde Berneke as it looks to compete with billionaire Elon Musk's Starlink network. Eutelsat completed its merger with UK-based peer OneWeb Ltd. last year. More deals in the industry have followed, including SES SA agreeing to buy Intelsat Holdings Sarl for $3.1 billion. Eutelsat's ground station network consists of antenna systems and other facilities that provide connectivity for the company's network of satellites. Last year, Eutelsat teamed up with telecom operator Vivacom to launch a ground station in Bulgaria. In January, the company said it's making final preparations to launch commercial service with Saudi Telecom Co. at their Tabuk ground station in the Gulf kingdom.

Eutelsat Ku-band Capacity Selected by InterSAT to Extend Its Pan-African Satellite Services to Enterprise and Retail Customers

Eutelsat Group (has extended its partnership with InterSAT one of Africa's leading satellite service providers to support InterSAT's growth in the Pan-African enterprise and retail segments. Under the latest multi-year strategic deal, InterSAT will add Ku-Band capacity over Central and Eastern Africa on Eutelsat's EUTELSAT 70B satellite to its current portfolio which already includes Ka-Band capacity on the EUTELSAT KONNECT satellite. Located at the 70.5° East orbital position, EUTELSAT 70B offers a broad wide beam coverage and four high-performance fixed beams, with a high degree of on-board connectivity. Commenting on the agreement, Hanif Kassam, Chief Executive Officer of InterSAT said: 'We are delighted to be able to rely on Eutelsat capacity once again to support our growth ambitions in Africa, home to some of the world's most remote and underdeveloped regions which represent a challenging environment for building terrestrial communication networks. Leveraging our VSAT service expertise and our teleport infrastructure, we are able to use satellite communication to deliver reliable and cost-effective connectivity to remote and underserved areas while assuring a high-end user experience for our customers." Ghassan Murat, Eutelsat's RVP of the AMEA region added: "We are honored to be selected by our long-standing partner, InterSAT, to accompany the further roll-out of its services in Africa. The growth of VSAT services in Africa is a testament to the potential of this technology to transform the continent's ICT landscape, connecting more people and businesses than ever before, as well as the ongoing relevance of our powerful geostationary in-orbit assets to deliver a compelling and reliable connectivity service to the remotest areas."



Eutelsat Group achieves Platinum Score in Space Sustainability Rating

Eutelsat Group, has announced that its first generation of more than 600 satellites in Low Earth Orbit (LEO) has achieved a platinum rating in the Space Sustainability Rating (SSR), marking a significant recognition of the company's commitment to responsible space utilization. First imagined at the World Economic Forum (WEF), the rating's aim is to reduce the creation of space debris, limit the risk of satellite collisions, and help ensure space operations are managed safely and sustainably. An international consortium developed the methodology behind the rating including experts from the European Space Agency, the Massachusetts Institute of Technology, BryceTech and the University of Texas at Austin. eSpace – EPFL Space Center was chosen to operationalize the SSR and lead its implementation in the hope to recognize the space sustainability efforts of different space actors, as well as recognizing compliance and encouraging better-than-required behaviors. The SSR rating is based on six modules, including: Mission Index, which calculates the impact of spacecraft on operational risk, Collision Avoidance Capabilities; Data Sharing; Detectability, Identification and Trackability; Application of Design and Operation Standards; as well as the use of future External Services. By surpassing the 80% threshold, resulting in the highest-level rating, a platinum level Space Sustainability Rating score, Eutelsat Group's achievement underscores the Group's dedication to prioritizing sustainable design and operations of the constellation. "With our increased presence in both LEO and geostationary orbit (GEO), we remain committed to the sustainable and responsible use of space" said Eva Berneke, CEO of Eutelsat Group. "We are honored to receive SSR's recognition and congratulations to the entire team for their hard work and dedication to sustainable and safe operations."

Huawei EM2.0 Model: Pioneering the Digital Transformation Path for African Operators

Africa Carrier Cloud Transformation Summit 2024 was held by Huawei during GITEX AFRICA 2024, covering the theme of " Enable New Growth Beyond Connectivity." Executives from regional governments, operators, industrial organizations and analysts had in-depth exchanges on the acceleration of their transformation using a digital cloud platform, moving beyond connectivity to create new growth avenues. At the summit, Huawei and African operators jointly announced the establishment of the "Africa Digital Intelligent Transformation Pioneer Club," marking the beginning of a new era in digital transformation for Africa. Benjamin Hou, President of Huawei Northern Africa Carrier Business, highlighted at the summit that digital transformation for operators has become a global trend. Africa is embracing a window of digital economy development, providing a historic opportunity for regional operators in transformation. EM 2.0 is more than a technology upgrade. It also exemplifies a profound change in mindsets and models. By optimizing digital infrastructure, building a digital cloud foundation, deploying digital O&M platforms, and enabling diverse digital services, promoting operators to transform from traditional network service providers to digital service providers, enable new growth beyond connectivity. James Crawshaw, Head of Telecom Transformation at Omdia, emphasized in his keynote speech that cloud services are crucial for global operators undergoing digital transformation. Cloud services not only achieve significant cost reductions and business expansion but also drive business innovation, build ecosystems, and become a new engine for revenue growth. Tariku Demissi, Chief Technology Officer of Ethio Telecom, stated that Ethio Telecom will continue to deepen its digital transformation around the "1 Cloud + 1 Network + 1 Entry + 2 Ecosystems" strategy. This involves creating a platform economy through comprehensive coverage of payment, social, entertainment, and live streaming services, while accelerating the evolution from B2B industry digitization to B2G national digitization. Ultimately, this will create new growth engines for Ethio Telecom. Ying Li, President of Huawei Global Product Portfolio Marketing and Solutions Sales Department, stated that a strategic cloud partner for operators needs to deeply understand telecom data, networks, and applications. Huawei Cloud, the fastest-growing cloud service provider in Africa, has proven through successful partnerships with over 120 global operators, including Ethio Telecom, that Huawei is the best partner for operators transitioning to digital service providers.

Huawei to Cultivate 3,000 Developer Advocates in the Next Three Years, Says Senior Executive Zhang Ping'an

Zhang Ping'an, Executive Director and CEO of Huawei Cloud Computing Technologies, launched the Huawei Developer Advocate Program at the Huawei Developer Conference (HDC). Over the next three years, the Program will cultivate 3,000 developer advocates, a diverse group including academics, students, and developers. Advocacy empowers developers with cutting-edge technologies and promotes ecosystems such as Kunpeng, Ascend, HarmonyOS, and Huawei Cloud. Zhang said Huawei is committed to cultivating developers by empowering them with innovation-driven creativity and breakthroughs for technol-

ogy advancement. This will create more possibilities as society embraces the opportunities and challenges arising from the transition from the digital to the intelligent era. The Program will promote industry-academia cooperation, technical training, development resources, various activities and platforms, and development operations. Developer advocates impart technical knowledge and practical experience to other developers through courses, textbooks, practice projects, technical communities, contests, and technical promotion for joint ecosystem growth and branding. Anyone meeting the application criteria is welcome to sign up. On June 22, Zhou Hong, President of Huawei's Institute of Strategy Research, awarded certificates to the first 29 teachers to participate in the Program. Huawei's Developer Advocate Program not only cultivates professionals who can master and use the company's open capabilities, but also strives to help others navigate these technologies so that society can benefit from the thriving industrial ecosystem and innovation. "Our Developer Advocate Program not only cultivates professionals who can master and use our open capabilities, but also strives to help others navigate these technologies so that our society can benefit from the thriving industrial ecosystem and innovation," said Zhou. One of the first Program advocates, Professor Xiong Shengwu of the Wuhan University of Technology, said, "We college teachers welcome Huawei's Developer Advocate Program, an initiative that will bridge universities and enterprises in talent development and enable our students to apply classroom knowledge in the workplace for better knowledge and occupational skills." Huawei will broaden its platform of opportunities for global developers to propel innovation and development. For more information on how to apply, please visit: Huawei Developer Advocate Program.

Huawei and China Mobile Win the TM Forum 2024 "People and Planet" Excellence Award

During the TM Forum Digital Transformation World (DTW) 2024 summit convened in Copenhagen, Denmark, Huawei and China Mobile were awarded the "People and Planet" Excellence Award in recognition of their outstanding innovation and implementation of a Zero Carbon Ocean 5G Coverage and Ocean Care. The awarded project demonstrates how Huawei and China Mobile have deeply integrated 5G, AI, IoT and other technologies with the marine industry, driving the high-quality development of the ocean economy and contributing to the marine ecosystem protection. The award of the "People and the Planet" Innovation Excellence Practice Project at the TM Forum is a recognition of Huawei and China Mobile's innovation and contribution in the field of marine communications technologies. China is a large maritime nation, with over 32,000 kilometers of coastline, among the world's top. Its abundant marine resources hold immense potential for local economic advancement. However, the complex and changeable marine environment, high-risk operations and the severe challenges of environmental protection have always been a difficult problem restricting the development of marine economy. Confronting these challenges, Huawei teamed up with China Mobile and its Jiangsu Provincial Branch, have actively explored the application of mobile communication technology in the marine domain, providing innovative solutions to the digital transformation for the maritime industry. Through the pioneering solution of "Land/Sea/Windmill Site + Resources Sharing + Intelligent Platform", the joint team successfully constructed offshore 5G base stations, overcoming the obstacles of site selection, power supply, and backhaul in the offshore scenarios. By leveraging renewable energy sources such as wind and solar, and AI-based power storage optimization solution, the joint team achieved Zero Carbon 5G coverage across the maritime expanse. Furthermore, they have actively explored collaboration with satellite companies, creating an integrated "Space-Sky-Sea" network to provide 100% wireless coverage in coastal waters. This innovative initiative not only furnishes basic communication, social entertainment, and entrepreneurial opportunities for offshore workers, tourists, and fishermen, but also supports the deployment of a series of B2B innovative applications such as marine IoT, smart waterways, and intelligent patrols, while also constructing a marine emergency communication lifeline. The successful implementation of this project has not only enhanced the coverage and service capabilities of China's marine communication network, but also driven the digital and intelligent transformation and upgrading of the marine industry. Through cooperation with local research institutes and universities, and thanks to the Huawei's 5G network, China Mobile has also applied artificial intelligence technology to wetland and marine pollution analysis, making positive contributions to the protection of the coastal ecosystem.

MENA and Central Asian Telecom Stakeholders Address Policy and Cybersecurity Standards at MWC Shanghai 2024

Huawei announced that MENA and Central Asian telecoms stakeholders came together at a roundtable during MWC Shanghai 2024, the leading connectivity event in the Asia Pacific region. The session, 'Middle East and Central Asia ICT Policy and Governance Forum', took place and was moderated by the GSMA, bringing together regulators and operators from the Middle East, North Africa, and Central Asia. The stakeholders included senior officials from the China Academy of Information and Communications Technology and Huawei to discuss industry policies, successful practices, and valuable insights on key industry trends. Themed "Driving Policy and Innovation to Shape Our Digital Future," the forum discussed the importance of spectrum, optical, and datacom policy planning and explored how carriers, enterprises, oversight agencies, and regulators can enhance mobile security capabilities and provide guidance for risk management strategies. The meeting also sought to promote the adoption of GSMA's Network Equipment Security Assurance Scheme (NESAS) and Mobile Cybersecurity Knowledge Base (MCKB). Attendees also reviewed industry policies and best practices, with examples from China's successful use cases. At the forum, Mr. Jeff Wang, President of the Public Affairs and Communications Department, Huawei, said, "To fully reap digital dividends, we need to pay more attention to enhancing connectivity, embracing digital application, and empowering digital talent." NESAS demonstrates how global collaborative efforts can address cybersecurity, offering a standardized assessment mechanism jointly defined by GSMA and 3GPP. It serves as a fundamental security baseline, developed in accordance with security standard guidelines pertaining to vendors' product development and lifecycle processes. NESAS is valuable to both operators and vendors and is intended to be used alongside other mechanisms to ensure network security throughout its lifecycle. MCKB seeks to help stakeholders manage risks in the 5G ecosystem by providing essential insights for their risk management strategy and guidance covering best practices and risk mitigation measures. The framework offers clear instructions for taking step-by-step actions to build security assurance while considering the entire risk spectrum of mobile end-to-end networks. It aims to enhance mobile security competencies and capabilities, strengthening the work of carriers, enterprises, oversight agencies, and regulators.

A focus on policy implementation and cybersecurity

The forum featured two sessions focused on policy implementation and cybersecurity. The ICT Policy Implementation session explored spectrum planning for 5G and 5G-A networks, universal service funds (USF) and policies to promote mobile connectivity in rural areas, strengthening regulation of mobile and fixed networks to improve digital economy foundations. The session provided recommendations for various countries, such as UAE, Saudi Arabia, Pakistan, and Iraq, based on their specific needs and achievements in these areas.More than 50 countries globally are investing in super-fast optical fiber networks and Giga broadband to handle the network demands from future technologies like AR/

VR and high-definition streaming. This digital upgrade is crucial to support the development of the regional ICT industry while ensuring a smooth user experience. Operators in the MENA region especially need to improve their optical fiber networks to ensure homes and offices have the speed and stability for these advancements. The Cybersecurity Session focused on building a Telecom-Information Security Management System (T-ISMS) to manage current cybersecurity issues facing telcos globally. The session covered key topics such as the roles and responsibilities of telecom cybersecurity for various stakeholders, implementing holistic telecom cybersecurity with collaboration between stakeholders and how regulatory authorities can promote telecom cybersecurity. Robust national network development strategies, aligned with visions and key industries, are crucial for MENA. The growing demand for advanced services necessitates network upgrades, vital for ambitious projects like Saudi Arabia's 10Gbs Society. Supportive policies from governments will incentivize carriers and enterprises to invest in infrastructure optimization. Joining the session, Mr. Lin Yanqing, Principal Consultant, Industry Policy Public & Government Affairs, Huawei Technologies, and Mr. Aloysius Cheang, Chief Security Officer, Huawei Middle East and Central Asia, reiterated that Huawei has taken a proactive approach to telecom cybersecurity standardization. Cheang said, "As we chart our journey into the digital future, cybersecurity must safeguard the trust and resiliency of the network, the cyberspace, and the metaverse where data is the new oil as organizations' assets are increasingly digitalized or virtualized. We must ensure that we continue to embrace the culture of openness, transparency, and collaboration. Cybersecurity is a team sport, and together with GSMA, we can leverage their good work, such as NESAS and MCKB, that will lay the foundation to secure broadband, 5G, 5G-A, and beyond." The executives explained that Huawei works with the GSMA, the ITU, the 3GPP, and others, as well as through partnerships with security organizations and companies, to ensure the security of its customers and promote the healthy development of the mobile ecosystem. Huawei has passed NESAS/SCAS 2.0 evaluations for its 5G base station and NESAS audits for its RAN and core network, demonstrating the company's commitment to cybersecurity.

Telecom Egypt Partners with Huawei Cloud to Host Huawei's First Public Cloud in Egypt and Northern Africa

In a significant step towards accelerating Egypt's digital transformation strategy, Telecom Egypt, a leading communications and information technology service provider, and Huawei Cloud have successfully joined forces to launch Huawei's first locally based public cloud platform in Egypt and Northern Africa. This launch aligns perfectly with Telecom Egypt's strategy to position Egypt as the premium regional digital hub, promoting the development of cloud computing and digital services, and underscores Telecom Egypt's and Huawei's commitment to enabling Egypt's transformation in the digital era. Hosting Huawei Cloud in Telecom Egypt's data centers ensures seamless reachability to more than 60 countries around the globe, capitalizing on more than 14 submarine cable systems, which are set to increase to 18 cable systems by 2025, in addition to the massive national reach of enterprises and SMEs in Egypt. Beyond hosting, Telecom Egypt is leveraging its extensive network and expertise to seamlessly integrate Huawei Cloud solutions with existing infrastructure. This ensures a smooth transition to the cloud and unlocks the full potential of these advanced services. Furthermore, Huawei Cloud offers comprehensive scenario-based solutions and extensive professional services (over 240+, covering cloud construction, migration, utilization, and management) to cater to evolving business needs in Egypt, allowing users to focus on business innovation while benefiting from a secure and reliable cloud environment. For over two decades, Huawei has built a strong presence in the Middle East and Africa. By introducing Huawei Cloud, Telecom Egypt and Huawei are showcasing their commitment to delivering cutting-edge technologies and services that cater to the evolving needs of the market, allowing businesses across various industries, such as e-commerce, live streaming, sharing economy, and more, to have access to advanced, reliable, and secure cloud solutions, empowering them to drive innovation and achieve sustainable growth. Additionally, launching the cloud is expected to generate a multitude of job opportunities for youth in Egypt and many countries in North, West and Central Africa. Mohamed Nasr, Managing Director and Chief Executive Officer, at Telecom Egypt, commented: "We are thrilled to host Huawei Cloud in Telecom Egypt's state-of-the-art, Tier III certified data center located in the Smart Village Campus, which is connected to EG-IX, an open access internet exchange platform, and a fully meshed subsea and terrestrial network that connects Huawei Cloud to the globe. This cooperation represents a significant milestone in our commitment to empowering businesses with cutting-edge technologies, as Telecom Egypt's hosting services will enable access to all networks in Egypt, supporting businesses and contributing to Telecom Egypt's vision of becoming a thriving global digital hub through its associated eco-system." Mr. Jim Liu, Chief Executive Officer at Huawei Egypt, commented: "The introduction of Huawei Cloud in Egypt signifies a remarkable shift, as it strives to establish a strong basis for industry digitalization, enabling numerous sectors to benefit from advanced intelligent engines. Additionally, our longstanding partnership with Telecom Egypt embodies our unwavering dedication to bringing cutting-edge technologies and services to Egypt, with a shared commitment to making the world a better place. Through collaborating with our valued partners, our collective mission is to accelerate the intelligent era, ensuring its success in a rapidly evolving digital landscape." It is worth mentioning that over the past four years, Huawei Cloud has focused on delivering advanced cloud services, providing local support, and fostering an open collaborative ecosystem. Its value proposition, known as "Three-building, Seven-operating, Safer Migration to the Cloud," is based on comprehensive disaster recovery plans, a robust 1+7 layer cloud-native security architecture, the Security Cloud Brain, and an intelligent cloud management architecture supporting up to Level 5 VDC management. These measures ensure a highly reliable, ultra-secure, and efficient cloud service experience for users, allowing Huawei Cloud, with its partners, to continue working actively to achieve even greater results, making a significant impact across various industries and shaping the future of the digital era.

Huawei and Partners Recognized for Demonstrating Use-Cases of AI

Huawei and its partners have won two prestigious awards for cases demonstrating practical applications of AI in industry. First, during the recent AI for Good Global Summit in Geneva on May 30-31, the International Communication Union (ITU) gave an award to Huawei and Hunan Valin Xiangtan Iron and Steel's for their use case of the Huawei Pangu AI Model in the steel industry. Secondly, the World Summit on the Information Society, an ITU event held on May 30 in Geneva, awarded an Excellence Certificate to Huawei and Saudi Telecom Company for their "SmartTruck" project, a mobile classroom that offers digital training to seniors.

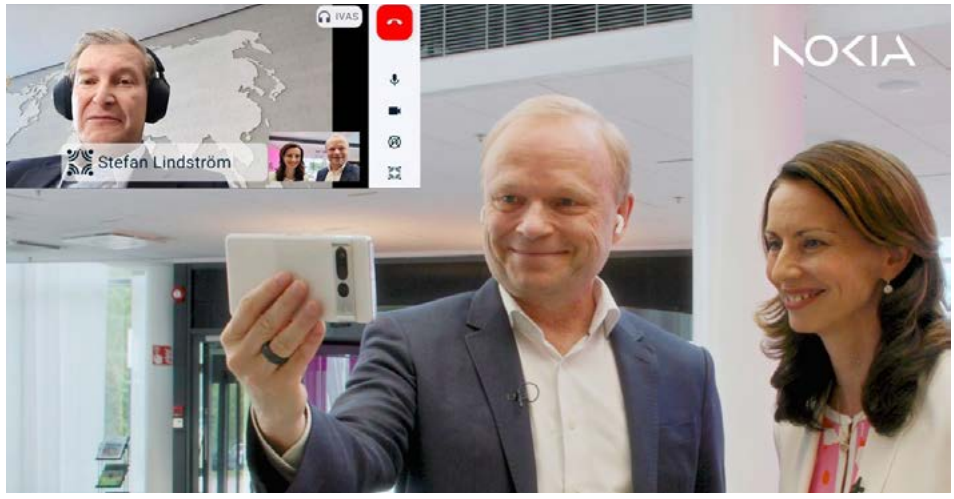
Award for use of AI in the steel industry

The first award was selected among submissions called by the International Telecommunication Union (ITU) to populate a repository of AI-driven solutions for sustainable development. The pilot release was announced at the recent AI for Good Global Summit, the leading United Nations platform for dialogue on sustainable AI development, in Geneva, Switzerland. The use of Pangu AI Model in the steel industry stood out among hundreds of submissions. Tomas Lamanauskas, Deputy Secretary-General of ITU, said the winning use cases exhibited clarity, Sustainable Development Goals (SDG) alignment, AI's impact on SDGs and adherence to ITU scope. Li Jianyu, Chairman of the Board of Hunan Steel Group, called the Pangu Model for the steel industry an innovative practice that facilitates the application of AI to traditional industries like steel. Cao Jibin, Senior Vice President of Huawei and President of the company's China Region, said Huawei will continue to work with partners to carry out large-scale innovative application practices, and create AI applications through system architecture innovation. These applications will thrive "in the three major areas of network infrastructure management, computing infrastructure, and data circulation infrastructure," he added. About 6,000 participants joined in person the ITU-organized AI for Good summit, which showcased innovations in generative AI, robotics, and brain-machine interfaces that can accelerate efforts to tackle worldwide challenges.

Leading CSP in Eastern Europe Deploys Nexign Policy Management to Prepare for the 5G Era

A Tier-1 communications service provider (CSP) serving a multi-million subscriber base has deployed Nexign PCRF/PCF, a high-performance converged solution for dynamic policy management in 4G and 5G networks. It will increase the CPS's flexibility in offering complex mobile plans and bundles in 4G, as well as support the customer's aim of becoming the 5G pioneer in its market. The solution allows monetizing new 5G services and managing the quality of experience (QoE) for partner services and ecosystems in real-time. The architecture of the Nexign policy management solution ensures high availability and a deep level of automation and orchestration, including automatic scaling in virtualized and cloud environments with Nexign Network Management System (NMS). Based on implementation results, Nexign PCRF's performance exceeds that of the replaced solution of a global PCRF vendor by 50%. This significantly reduces total cost of ownership (TCO) by decreasing hardware requirements. "Being a leading CSP in the country, our customer had very strict requirements for the solution's flexibility, reliability, scalability, and performance, and we managed to demonstrate them during the delivery project. The solution will help the client accelerate the monetization of new services, personalize the customer experience more flexibly, and optimize network usage in the face of increasing traffic volumes. It is important for maintaining the operator's competitiveness in the market, as the subscribers' requirements for the CSP's service are expanding, and the load on the infrastructure is increasing," comments Sergey Karpov, Nexign's Chief Commercial Officer. Nexign PCRF/PCF fully complies with the 3GPP specifications and 5G service-based architecture. It can be deployed in any telco environment, including public and private clouds, and supports network function virtualization and horizontal scalability.

Nokia CEO Makes World's First Immersive Voice and Audio Call



The new 3GPP Immersive Voice and Audio Services codec is part of the upcoming 5G Advanced standard. The call was made with a regular smartphone over a public 5G network between Nokia CEO Pekka Lundmark and Stefan Lindström, Finland's Ambassador of Digitalization and New Technologies. The Immersive Voice and Audio Services (IVAS) codec enables a spatial "surround" sound, which is expected to have used in enhancing extended reality experiences. Any devices, such as smartphones, tablets, or PCs, can use this technology. Pekka Lundmark, President and CEO of Nokia, said: "We have demonstrated the future of voice calls. This groundbreaking audio technology takes you to the caller's environment creating a spatial and massively improved listening experience for voice and video calls, offering significant benefits for enterprise and industrial applications."

Nokia Selected by Globe Telecom to Modernize BNG Network to Improve Broadband Experience in the Philippines

Nokia announced that Globe Telecom will deploy its BNG solution in key areas in the Philippines, including North Luzon, South Luzon, National Capital Region, Visayas and Mindanao, to modernize its infrastructure and provide a superior broadband experience to its customers. Once deployed, Nokia's solution will support Globe Telecom's residential wireline postpaid and prepaid broadband services. The new solution will help Globe Telecom optimize the Total Cost of Ownership (TCO), it will also introduce a capability to support Fixed Wireless Access (FWA) services, enabling Globe to offer the solution towards Fixed Mobile Convergence. Nokia's solution includes 7750 Service Router (SR), which will be used as a BNG platform to support broadband services with subscriber management, bandwidth management and per-subscriber policy control. Globe Telecom will also use Nokia's 7750 SR Extended Services Appliance (ESA) to support Carrier-Grade Network Address Translation (CGNAT) and Application Assurance functions. Joel Agustin, Senior Vice President - Network Planning and Engineering, Network Technical Group at Globe Telecom, said: "We are committed to continuously improving our network infrastructure to provide the best possible broadband experience to our subscribers. Nokia's new BNG solution introduces capability to evolve into a flexible multi-access gateway that can combine wireline and wireless access technologies, enabling us to further increase efficiencies. We are looking forward to working with Nokia on this crucial initiative." Kent Wong, Vice President and Head of IP Business at Nokia Asia Pacific, said: "We have a longstanding partnership with Globe Telecom and are now delighted to work on this initiative to modernize the BNG network for an overall improved broadband experience. Our industry-leading BNG solution equipped with multi-access gateway capabilities is based on 7750 SR and powered by our breakthrough FP network processor technology and proven Service Router Operating System (SR OS) will help build a scalable, flexible and energy-efficient broadband network and pave the way for future evolution towards Fixed Mobile Convergence."

Nokia Set to Supply 5G Equipment to MEO

Nokia is expected to sign an agreement with the Portuguese operator. According to reporting by Reuters, Nokia is set to secure the deal, with an announcement expected as early as next month. The news agency cites an internal Nokia blog post as well as two sources familiar with the matter. MEO is one of the three major national mobile network operators (MNOs) in Portugal, boasting over 6 million subscribers. Up until now, Huawei had been MEO's sole supplier of 2G, 3G and 4G Radio Access Network (RAN) equipment. Since 2020, Huawei has been banned in the U.S. and several European countries over security concerns. A deal with Nokia would mark the company's return to Portugal's RAN market.

Orange and Nokia Strengthen Collaboration with API Agreement to Accelerate 5G Application Development in Europe

Orange and Nokia announced that they are expanding their partnership to advance network programmability and monetization. Using Nokia's Network as Code platform with developer portal, developers will be able to test and take advantage of Orange's 5G network capabilities to create applications for customers in France and other parts of Europe. Orange, one of Europe's leading telecommunications providers with more than 280 million mobile subscribers, is already providing commercial production grade network API capabilities to developers using the Orange Developer Portal. Orange aims to accelerate and further tap into the global ecosystem of developers and unlock 5G network capabilities such as dynamic bandwidth allocation, real-time location insights, predictive maintenance, and event-driven triggers for security and safety responses. To make that happen, Nokia's Network as Code platform with developer portal will provide application developers with access to Software Development Kits (SDK); Network API documentation, a 'sandbox' to create software code for use case simulation and testing; and code 'snippets' that can be included in new applications in addition to Orange Developer Portal. As a result of this expanded partnership, an extension of Orange and Nokia's long-standing relationship, developers will have the tools to leverage Orange's network features, develop new use cases, and create new value for developer and Orange customers. As part of the first step in their network API collaboration, Orange and Nokia will co-host a "Network as Code Hackathon" on May 23-24 at France's premier tech start-up conference, Viva Tech. This hackathon will provide a forum for developers to build new, innovative use cases and applications using Nokia's Network as Code platform with developer portal. Going forward, as part of the expanded partnership, Orange and Nokia will further engage with the developer community by enabling pre-commercial use case support while leveraging network API expertise and network capabilities provided by both partners. This pilot program will become available progressively in select European countries at first by leveraging Orange 5G Labs network. Nokia's Network as Code platform with developer portal brings together telco networks, systems integrators, and software developers from around the world into a unified ecosystem to accelerate the development of software applications that can harness the untapped capabilities of 5G and 4G networks. The platform uses technical standards produced through industry initiatives such as the GSMA Open Gateway initiative and the Linux Foundation CAMARA. Nokia and Orange contribute to both initiatives. Orange has already implemented Linux Foundation CAMARA's guidelines and first commercial grade APIs are available in France and Spain. Nokia has signed collaboration agreements with 12 network operators and ecosystem partners around the world to use its Network as Code platform with developer portal. Laurent Leboucher, Group CTO at Orange, said: "We are very pleased to open another area of collaboration with Nokia that enables compelling business use cases to consume our network assets in ways that were not really feasible years ago. The level of collaboration among operators, system integrators, developers, and partners, is a step change and this is positioning us to better tap the cloud-native capabilities built into Orange's 5G network." Raghav Sahgal, President of Cloud and Network Services at Nokia, said: "This is an important step in our relationship with Orange and further validation of the steps we are taking in the API journey to help customers achieve network programmability and monetization. We look forward to our continued close cooperation with developers to create and drive new opportunities that support Orange in delivering even more value from its network assets."

Nokia and Baktelecom Deploy Commercial XGS-PON Services in Azerbaijan

Nokia has announced that Baktelecom, Azerbaijan's state-owned operator, is deploying its XGS-PON solution to help bring new gigabit services to residential and business customers across Azerbaijan. Deployment started in March 2024, covering the capital city of Baku in the project's initial stage. Nokia's XGS-PON solution allows Baktelecom to bring 10Gb/s broadband connections to home and businesses. Baktelecom will also deploy Nokia's mesh Wi-Fi Beacons to ensure customers receive the best WiFi coverage and performance throughout the home. With Nokia's XGS-PON technology, Baktelecom deploys XGS-PON services in Azerbaijan, helping to improve the population's well-being with high-speed connectivity for all. Tural Pirverdiyev, acting CEO of Baktelecom, said: "We have always been committed to bringing the best technology to Azerbaijan to meet surging data demands. With Nokia's XGS-PON, not only do we become a leading provider of these next-generation services in Azerbaijan, but we are also able to offer ultra-fast fiber connectivity to wholesale broadband providers and, in turn, to residential and business customers." Bjorn Capens, Vice-President, Network Infrastructure Europe, Fixed Networks at Nokia, said: "As the market leader in XGS-PON, we are proud to partner with Baktelecom in Azerbaijan. With our fixed networks solution, Baktelecom can quickly address its customers' evolving broadband demands to deliver new services and applications that require a reliable, ultra-fast connection. Their network will also be future-proof, giving Baktelecom the flexibility to upgrade to 25G PON in the future using its existing fiber network." Powered by the Quillion chipset, Nokia's 25G PON solution works alongside GPON and XGS-PON on the same fiber, allowing Baktelecom to use its existing fiber network to offer true 10Gbs services and beyond to its customers.

Nokia Unveils Advanced DDoS Countermeasures for Improved Protection Against Botnet and Application-Level DDoS Attacks

Nokia has revealed an expanded set of Distributed Denial of Service (DDoS) mitigation capabilities of its Defender Mitigation System (7750 DMS-1) through advanced DDoS countermeasures. These countermeasures allow the DMS to meet the growing demands of communications service providers (CSPs) and large digital enterprises to fight the latest generations of DDoS attacks with improved efficiency and cost efficiency. Over the last two years, DDoS attacks have become more frequent, sophisticated, and potent with many CSPs and enterprises registering over 100 attacks daily. In 2023, more than 60% of all DDoS attacks were botnet-based, posing great challenges for legacy DDoS solutions and systems to detect and mitigate them. In 2024, DDoS threats come in a variety of new disguises, including free web browsing proxies that can be used to orchestrate botnet DDoS attacks without the knowledge of end-users. The ever-changing DDoS threat landscape is driving the need to neutralize new generations of DDoS attacks with improved speed, efficiency, and precision. A better approach to DDoS security is required to protect services and customers against a new scale of DDoS attacks (tens to hundreds of Gbps, occurring regularly), new levels of attack complexity (from many more sources to many more destinations and involving tens to hundreds of thousands of endpoints in case of botnet DDoS), and at a whole new level of concurrency (e.g., hundreds of simultaneous attacks). The new release of 7750 DMS-1 delivers Advanced Countermeasures Engine (ACE) functionality with L4-L7 stateful inspection of IP packets, allowing 7750 DMS-1 to combat all types of DDoS attacks – from volumetric to botnet and application-layer attacks – with a new level of agility and cost efficiency. The ACE functionality on 7750 DMS-1 is a testament to Nokia's commitment to innovation, further enhancing Nokia's unique combination of AI-driven big data analytics in Deepfield

Defender and advanced IP networking technology, including the Nokia state-of-the-art routers powered by FP5 silicon. At the heart of the Nokia DDoS security solution is Deepfield Defender – an "all-seeing, all-knowing" AI-driven big data processing platform that analyzes network telemetry information obtained from the network and correlates it with the "security map of the internet," the Deepfield Secure Genome® data feed. Using advanced AI/ML learning and algorithms, Defender makes real-time decisions about how to neutralize DDoS threats and attacks by activating mitigation on the network edge or a dedicated, next-generation mitigation platform, Defender Mitigation System (7750 DMS-1). The Nokia 7750 DMS-1 boosts DDoS mitigation efficiency with an array of new features, such as a full global map of DDoS botnets, improved DNS server protection, packet validation, and selective geo-IP blocking. 7750 DMS-1 has been designed to address stringent network security requirements driven by both networking and security teams.

Nokia Selected by Globe Telecom to Modernize BNG Network to Improve Broadband Experience in the Philippines

Nokia announced that Globe Telecom will deploy its BNG solution in key areas in the Philippines, including North Luzon, South Luzon, National Capital Region, Visayas and Mindanao, to modernize its infrastructure and provide a superior broadband experience to its customers. Once deployed, Nokia's solution will support Globe Telecom's residential wireline postpaid and prepaid broadband services. The new solution will help Globe Telecom optimize the Total Cost of Ownership (TCO), it will also introduce a capability to support Fixed Wireless Access (FWA) services, enabling Globe to offer the solution towards Fixed Mobile Convergence. Nokia's solution includes 7750 Service Router (SR), which will be used as a BNG platform to support broadband services with subscriber management, bandwidth management and per-subscriber policy control. Globe Telecom will also use Nokia's 7750 SR Extended Services Appliance (ESA) to support Carrier-Grade Network Address Translation (CGNAT) and Application Assurance functions. Joel Agustin, Senior Vice President - Network Planning and Engineering, Network Technical Group at Globe Telecom, said: "We are committed to continuously improving our network infrastructure to provide the best possible broadband experience to our subscribers. Nokia's new BNG solution introduces capability to evolve into a flexible multi-access gateway that can combine wireline and wireless access technologies, enabling us to further increase efficiencies. We are looking forward to working with Nokia on this crucial initiative." Kent Wong, Vice President and Head of IP Business at Nokia Asia Pacific, said: "We have a longstanding partnership with Globe Telecom and are now delighted to work on this initiative to modernize the BNG network for an overall improved broadband experience. Our industry-leading BNG solution equipped with multi-access gateway capabilities is based on 7750 SR and powered by our breakthrough FP network processor technology and proven Service Router Operating System (SR OS) will help build a scalable, flexible and energy-efficient broadband network and pave the way for future evolution towards Fixed Mobile Convergence."

HKBN to Launch Asia's First 25G PON Broadband Service with Nokia

Nokia announced that Hong Kong Broadband Network Limited (HKBN), a leading telecom and technology solutions provider in Hong Kong, PRC, will deploy its 25G PON fiber solution to provide customers with some of the fastest, most reliable broadband access speeds in the region. The 25G PON deployment will deliver 20Gb/s symmetrical broadband speeds essential for new applications and business services powering digital economy. Fiber is a futureproof, energy-efficient technology being used to connect everything to multi-gigabit services. With the growth of the digital economy, operators like HKBN are increasingly wanting to offer new services that can deliver the ultimate user experience and evolve with their customers' broadband needs. Based on the Quillion chipset, Nokia's 25G PON fiber broadband solution allows HKBN to reuse its existing fiber broadband equipment to immediately address demand for more capacity and enhanced broadband services. William Yeung, HKBN Co-Owner, Executive Vice-chairman and Group CEO, said: "Since 2004, HKBN has been the market leader in introducing Hong Kong's first fiber-to-the-home broadband service. With an unwavering commitment to innovation, we have joined forces with Nokia to achieve a groundbreaking upgrade, proudly providing customers with a revolutionary 25Gbps broadband speed that meets their ever-increasing demands for network connectivity. Looking ahead, we will continue to stay at the forefront of technological advancements, investing resources to expand network coverage and upgrade infrastructure. This will enable more households and businesses to benefit from our exceptional and high-quality services." Geert Heyninck, Vice President of Broadband Networks at Nokia, said: "Nokia's technology enables HKBN to upgrade its existing fiber network quickly and efficiently, leveraging both passive and active assets. With Nokia's technology and HKBN 's citywide network, we're leading customers into a new era of seamless connectivity." Roland Montagne, Director and Principal Analyst for FTTH at IDATE, said: "The momentum behind 25G PON continues to build with the number of deployments growing substantially over the past year. Clearly the ability to quickly upgrade GPON and XGS-PON to deliver true 25Gbs without having to deploy additional network elements is attractive for large operators like HKBN that want to deliver 25G PON services to its customers."

Nokia Claims GSMA API First with Latest Software

Nokia unveiled a software product it claimed would be the first implementation of a GSMA platform contributing to the organization's Open Gateway API initiative and simplify the creation of services for consumer, enterprise and industrial users. The vendor's Network Exposure Platform aims to increase the number of APIs service providers can access and simplify deployment. Nokia stated it uses the GSMA Operator Platform, a common set-up operators can use to deliver various interfaces. Nokia added its software will also be compatible with initiatives including CAMARA from the Linux Foundation and the TM Forum Open API program, along with edge-based and other interfaces involved in "connecting networks securely to a broader B2B digitalization" field. The vendor designed the platform to work alongside its network exposure function, a 3GPP-compliant, cloud-based API-exposure product focused on revenue generation which aligns with the GSMA Open Gateway initiative. Shkumbin Hamiti, head of network monetization platform for Cloud and Network Services at Nokia, said an ongoing and "collaborative effort" is needed to enable access to the capabilities of 4G and 5G networks. Nokia explained opening access to the deep functionality in networks using APIs enables application developers to create new use cases. Its platform provides a "unified, scalable and secure" place for operators to offer that access. Operators have been quick to rally around the GSMA Open Gateway initiative since it was launched during MWC Barcelona 2023. Earlier this year, Telefonica president and CEO Jose Maria Alvarez-Pallete likened the impact of the program to the introduction of roaming services, while Singtel Group CEO Yuen Kuan Moon praised the potential of the standardized approach to unlock fresh revenue streams.

SES Announces Successful Syndication and Raising of €3 Billion Acquisition Financing

SES S.A. announces the successful syndication of a €3 billion equivalent acquisition financing package to support the earlier announced agreement for SES to acquire Intelsat S.A.. Prior to the Intelsat deal announcement, Deutsche Bank AG and Morgan Stanley jointly had underwritten a €3 billion bridge facility to support SES's financing requirements as part of the agreement to acquire Intelsat. This €3 billion bridge facility has been successfully syndicated now, with a highly oversubscribed level of commitments, to an international group of existing relationship and new banks in the form of a €2.1 billion bridge facility and US$1 billion term loan. The term loan was upsized in syndication on the back of a strong response from the bank group. The bridge facility serves to provide financing certainty and flexibility in the issuance of bonds. The bridge facility has tenor of 12 months and is extendable twice by a further six months while the term loan has a five-year amortizing tenor from its drawl. The term loan financing diversifies funding sources for SES, at an attractive rate, and provides flexibility for deleveraging over time. SES has also agreed to a two-year extension of the €1.2 billion revolving credit facility (signed 26 June 2019) thereby maintaining a fully committed back-up liquidity facility up to 26 June 2028 with a group of 19 banks. Sandeep Jalan, Chief Financial Officer of SES, said, "We are delighted to have received overwhelming support of our banking partners in the financing of this important and transformational transaction for SES. The bridge facility provides SES with financing flexibility from a capital markets issuance perspective while the term loan serves as a source of long-term financing."

SES Space & Defense Demonstrates First Multi-Orbit, Multi-Band Commercial LEO Relay

SES Space & Defense, a wholly-owned subsidiary of SES announced the successful demonstration of the first multi-orbit, multi-band commercial space relay service in support of the NASA Communications Services Project (CSP). To demonstrate data relay services, SES Space & Defense partnered with Planet Labs (Planet), the leading provider of global daily Earth data using SES's O3b mPOWER satellite constellation in Medium Earth Orbit (MEO) and Planet's Low Earth Orbit (LEO) flight-representative terminal. SES Space & Defense and Planet demonstrated a stable data link, validating the hardware, data flow and the end-to-end system performance as well as successfully reduced flight hardware and services risk. Throughout the testing process, the performance of Planet's flight modem correlated with expectations, achieving link budgets that consistently aligned with predicted results. The demonstrations support NASA's Funded Space Act Agreement, which enables commercial space relay via Geostationary (GEO) C-band and Medium Earth Orbit (MEO) Ka-band satellites to spacecraft in Low Earth Orbit (LEO). The initiative allows for NASA's transition from the Tracking and Data Relay Satellite System (TDRSS) to commercial systems for its space relay requirements while helping create a commercial market for space relay. In late 2023, SES Space & Defense already demonstrated Telemetry, Tracking and Commanding (TT&C) relay services through ground testing of a C-band "always on" channel. This was accomplished through Planet's LEO flight-ready C-band terminal and SES's C-band GEO global beams. "With this end-to-end test and demonstration of capabilities, we were able to successfully showcase a complete data flow through our LEO Relay System (LRS) service," said David Fields, President and CEO, SES Space & Defense. "The data measurement results validated our multi-band commercial space relay service, set the stage for the flight demonstration as the next step, and for the future launch of the operational service offering. We are exceptionally proud of all involved in developing a multi-orbit, multi-band space relay for both government and commercial LEO operators as NASA's TDRS system retires."

SES to Buy Intelsat for $3.1bn

Luxemburg-based satellite company SES has signed a deal to buy Intelsat Holdings for $3.1 billion. A joint press release from the two companies explained the combination as creating "a stronger multi-orbit operator with greater coverage, improved resiliency, expanded suite of solutions, enhanced resources to profitably invest in innovation, and benefit from the collective talent, expertise, and track record of both companies." Once combined, SES's orbital assets will include 100 Geostationary Earth Orbit and 26 Medium Earth Orbit satellites. The deal gives Intelsat an enterprise value stands of $5 billion, with SES suggesting the deal will deliver synergies worth €2.4 billion ($2.6 billion). "Going forward, customers will benefit from a more competitive portfolio of solutions with end-to-end offerings in valuable Government and Mobility segments, combined with value-added, efficient, and reliable offerings for Fixed Data and Media customers," said SES CEO Adel Al-Saleh. Now, the deal has been unanimously approved by both company boards and is expected to close in the latter half of next year, pending regulatory approval. The deal represents the latest stage in consolidation of the global satellite industry, as European companies attempt to compete against newer rivals such as Elon Musk's Starlink, which launched in 2019 and has come to dominate in terms of sheer scale. However, in terms of financials and with its well-established customer base, this newly combined SES–Intelsat could become an even more significant player in the satellite communications industry.

SES Releases Q1 2024 Results

SES S.A. announced financial results for the three months ended 31 March 2024 and a solid start to the 2024 financial year.

- Revenue of €498 million (+2.5% YOY) and Adjusted EBITDA of €275 million (+4.7% YOY)
- Networks up 9.6% YOY including periodic revenue, with Video performance (-5.2% YOY) in line with expectations
- More than €125 million of new business and contract renewals signed in Q1 2024
- Adjusted Free Cash Flow of €38 million net inflow compared with €(41) million net outflow in Q1 2023
- Net Leverage at 1.5x including cash & cash equivalents of €2.4 billion
- Landmark quarter with 2nd generation MEO constellation, O3b mPOWER, beginning customer services in April 2024
- €220 million dividend payment (€0.50 per A-share) made to shareholders in April, complemented by on-going share buyback of up to €150 million and interim dividend of €110 million dividend payment (€0.25 per A-share) to be paid in October 2024
- Outlook for FY 2024 Revenue, Adjusted EBITDA, and capital expenditure on track and re-affirmed

Adel Al-Saleh, CEO of SES, commented: "The first quarter results demonstrate our solid start to the year, and we continued to deliver commercial momentum across the business, underpinning our FY 2024 financial outlook which is on track and unchanged. Our Networks business now accounts for over 50% of revenue and delivered YOY growth including periodic revenue from a contract modification which allowed us to recontract capacity on our highly contended MEO fleet and generate incremental cash flows. In Video, our Sports & Events offering continued to be the standout performer, adding to its impressive line-up of customers with an exciting new agreement with a global tier one sports brand to distribute live content to audiences across the world. April 2024 delivered a landmark milestone for SES with the entry into commercial service of O3b mPOWER, our next generation MEO constellation, strengthening our capability to deliver competitive and differentiated customer solutions in valuable, high growth government, mobility, and fixed data markets. The next O3b mPOWER satellites (7-8) are on track be launched in late 2024 launch and bring improved resiliency to the network which will be further expanded with the launch of satellites 9-11 plus 12 & 13 in 2025 and late 2026 respectively."

SES and UZ-SAT Aim to Bring Enhanced Connectivity to Uzbekistan

Satellite operator SES and UZ-SAT, the Republic of Uzbekistan's national broadband satellite service provider, have announced plans to sign an agreement to deliver what are described as unparalleled connectivity services throughout Uzbekistan via the SES GEO satellite NSS-12. Under this agreement, which aims to support mobile backhaul services across the nation, UZ-SAT will leverage SES' reliable satellite communications to bridge the digital divide, particularly in remote and rural regions underserved by existing terrestrial networks. The partners say that this initiative is set to drive digital inclusion, ensuring that even the most isolated communities benefit from robust and consistent connectivity. But the agreement isn't just about remote connectivity. In a country frequently impacted by natural disasters such as earthquakes and floods, it will also enhance Uzbekistan's disaster resilience. SES says its satellite technology will empower UZ-SAT to rapidly restore critical communication networks, ensuring uninterrupted service during emergencies and safeguarding essential communication infrastructure. UZ-SAT provides fixed and mobile satellite services, expanding connectivity throughout Uzbekistan and supporting government initiatives and agencies to help bridge the digital divide. It also delivers corporate networks and networking solutions for banks, schools, hospitals, mobile vehicles, trains and aeroplanes, among other markets. This isn't the only digital inclusion initiative involving SES lately. It comes only a month after we reported that Colombian connectivity service provider INRED and SES had announced a collaboration that is to use SES medium earth orbit (MEO) satellites to provide internet connectivity in the Colombian department (administrative division) of Amazonas.

stc Bahrain Recognized as "Most Innovative Digital Solutions Brand" at the Global Brand Awards 2024

stc Bahrain, a world-class digital enabler, has once again been recognized as the "Most Innovative Digital Solutions Brand" at the Global Brand Awards 2024, offering cutting-edge technology and innovative solutions to its customers. This prestigious award is a testament to stc Bahrain's continued efforts in driving forward Bahrain's digital transformation journey in line with the Kingdom's Economic Vision 2030. Eng. Khalid Al Osaimi, CEO of stc Bahrain, commented on the award, "We are honored to receive this award and be recognized for our innovative digital solutions. We will continue to invest in cutting-edge technologies and infrastructure to deliver exceptional customer experiences and drive forward Bahrain's digital transformation journey." stc Bahrain is committed to delivering exceptional customer experiences with its relevant and responsive product portfolio. The company invests in new infrastructure to pave the way for future connectivity services and cutting-edge technologies and has disrupted the telecommunications industry with innovative offerings such as 5G, cybersecurity, cloud computing, mobile payment solutions, insurtech services, and more. The Global Brand Awards recognize companies that have demonstrated exceptional performance in their respective industries. The awards are judged by a panel of experts who evaluate each company based on their achievements, innovation, and impact on the market. stc Bahrain's commitment to innovation has earned them numerous awards and accolades over the years. The company has consistently been recognized for its outstanding performance and contribution to the telecommunications industry.

solutions by stc sponsors the 'Cyber First Kuwait' Conference as the Official 'Digital Partner'

solutions by stc, the specialized business arm of Kuwait Telecommunications Company – stc, sponsored the "Cyber First Kuwait" as the official 'Digital Partner' of the conference. Organized by Events First Group (EFG) in collaboration with the National Cyber Security Center and the Central Agency for Information Technology (CAIT), the conference marks a significant step towards securing Kuwait's digital future in line with New Kuwait Vision 2035. solutions by stc's sponsorship of the conference aligns with the Company's ongoing support towards the Kuwaiti community, leveraging its expertise and experience to empower platforms that bring together like-minded individuals within the evolving digital world. Held at the Radisson Blu Hotel, the conference outlined a transformative journey towards a digitally secure and sustainable future for Kuwait. The increased digitization witnessed across various sectors, both government and private, have highlighted the urgent need for robust cybersecurity measures to protect sensitive data. In response to the rising cyber threats, the Kuwaiti government has established the National Cyber Security Strategy, prioritizing and safeguarding the nation's cybersecurity landscape. This strategy, coupled with proactive measures from the private sector, is driving Kuwait's cybersecurity market towards remarkable growth. The Cyber First Kuwait conference gathered cybersecurity experts, including professionals in Information Security, Risk, Compliance, Forensics, and Cyber Law. The event aimed to foster collaboration across public and private sectors to battle the efforts of malicious attacks and strengthen Kuwait's cybersecurity resilience. Representatives from stc, Eng. Fahad Al Ali CTO and Acting - CEO of e-Portal Holding, Eng. Issa Al-Suwait- GM Cyber Security of stc , Ali Al Yaseen GM –Sales and Business solutions and directors from the Business Sales and Products teams along with the Corporate Communications Teams, attended the conference. During the conference, solutions by stc showcased its comprehensive cybersecurity solutions, with a team of specialists addressing queries and concerns raised by the attendees visiting the Company's booth. solutions by stc also participated in a panel discussion titled "Leveraging AI to Address Cyber-Attacks and the Evolving Threat Landscape", where Eng. Issa AlSuwait, GM of Cyber Security at stc, shed light on the power of AI and its role in mitigating the threats faced by Kuwait's cyber landscape. The discussion covered the role of AI in threat detection through enhanced capabilities, identifying patterns, and swiftly recognizing anomalies in the evolving cyber-threat landscape. The panel also highlighted the effectiveness of AI-driven response strategies through the exploration of their impact on mitigating cyber threats. Additionally, challenges and benefits of AI-drive behavioral analytics were discussed, along with the importance of adaptive AI models that are significant to continuous learning and adaptation to combat new cyber threats. solutions by stc highlighted in a statement that it will remain committed to supporting the technological and digital infrastructure in Kuwait by providing cutting-edge solutions that enhance the country's cybersecurity ecosystem. By participating in key conferences and initiatives, solutions by stc will to contribute towards building a secure and resilient digital environment in line with Kuwait's Vision 2035. With the rapidly evolving digital world, solutions by stc actively explores the latest technological tools and systems to keep pace with advanced cybersecurity threats and possible malicious attacks. Moving forward, the Company will continue to introduce the latest cybersecurity solutions to support and provide 360-protection to its B2B customers. solutions by stc has also built and solidified its reputation as one of the key players in the market offering comprehensive connectivity, ICT, IoT, and enterprise solutions to support network, infrastructure, and application needs. Through its active and progressive approach, it has grown into a powerful one-stop shop for business and wholesale solutions, catering to the needs of government and corporate entities nationwide and across the region.

Tech Mahindra and IBM to Help Enterprises Accelerate Adoption of Trustworthy Generative AI Using watsonx

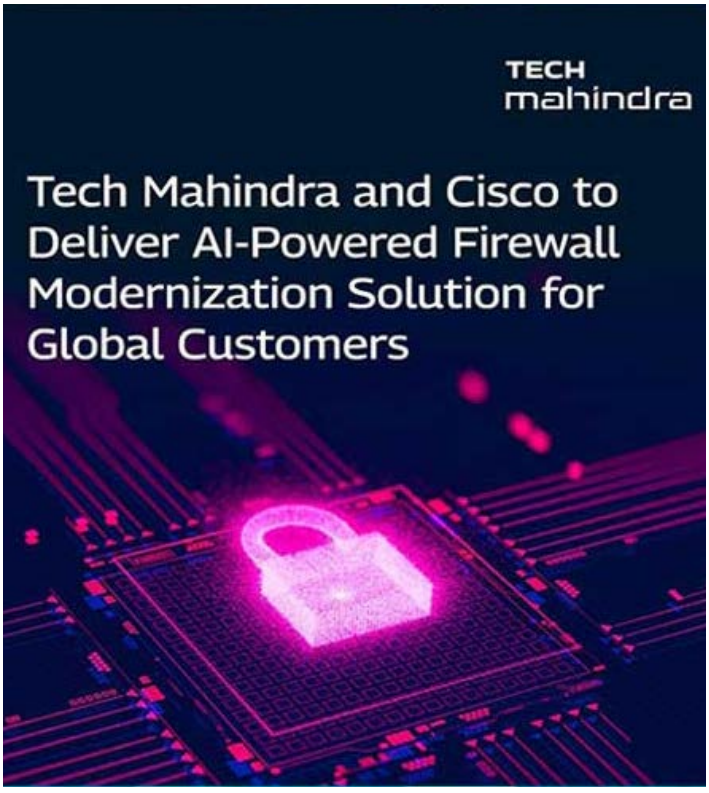
Tech Mahindra, a leading global provider of technology consulting and digital solutions to enterprises across industries, announced they are collaborating with IBM to help businesses worldwide responsibly accelerate the adoption of generative AI (GenAI). TechM amplifAI0, Tech Mahindra's suite of AI offerings and solutions, can integrate with the IBM watsonx AI and data platform with AI Assistants to bring new GenAI and governance capabilities to enterprises. Customers can combine the power of IBM watsonx and Tech Mahindra's strong AI consulting and engineering skills to access various new GenAI services, frameworks, and solutions architectures. This can allow for the delivery of AI applications, where businesses can access their trusted data and automate processes. This can provide the foundation for customers to build trustworthy AI models and drive explainability to help mitigate risk and bias. It could also promote scalable adoption of AI across hybrid cloud and on-premises environments. Kunal Purohit, Chief Digital Services Officer, Tech Mahindra, said, "Organizations are now seeking to implement responsible Artificial Intelligence practices while concurrently revitalizing enterprises by integrating GenAI technology. Our work with IBM can help advance digital transformation for organizations, adoption of GenAI, modernization, and ultimately foster business growth for our global customers." To help customers enhance business capabilities in AI, Tech Mahindra has a virtual watsonx Centre of Excellence (CoE), which is already in operation. The CoE serves as a co-innovation center, with a specialized team dedicated to optimizing the synergies between both organizations and developing unique offerings and solutions based on their strengths. The collaborative offerings and solutions developed could help enterprises accomplish their goals of building machine learning models using open-source frameworks while also enabling them to scale and accelerate the impact of GenAI. These solutions could help organizations responsibly bring efficiency and productivity. Kate Woolley, General Manager, IBM Ecosystem, said, "GenAI can be a catalyst for innovation with the potential to unlock new market opportunities when built on a foundation of explainability, transparency, and trust. Our work with Tech Mahindra is expected to expand the reach of watsonx, allowing even more customers to build trustworthy AI as we seek to combine our technology and expertise to support enterprise use cases such as code modernization, digital labor, and customer service." The work is in line with Tech Mahindra's continuous endeavor to transform enterprises with advanced AI-led offerings and solutions, along with its recent addition of Vision amplifAIer, Ops amplifAIer, Email amplifAIer, Enterprise Knowledge Search offering, Evangelize Pair Programming, and Generative AI Studio.

Tech Mahindra and TM Forum to Upskill Next-Gen Workforce to Drive Innovation for CSPs

Tech Mahindra, a leading global provider of technology consulting and digital solutions to enterprises across industries, announced a strategic partnership with TM Forum, the worldwide consortium of over 800 entities driving digital innovation. The partnership will cultivate a powerhouse workforce that drives global operational excellence and digital transformation for Communication Service Providers (CSPs). As CSPs develop new operating models, they must continuously enhance workforce skills to align their talent with technological advancements, enabling simplification, modernization, and monetization at scale and speed. The partnership will meet this critical need by leveraging TM Forum's expertise in setting industry benchmarks and Tech Mahindra's deep domain expertise as the world's largest CSP IT services provider, fostering the adoption of the digital skills essential for CSPs to drive innovation based on industry standards. Abhishek Shankar, President - Communications Business, Americas, Tech Mahindra, said, "As our customers undergo transformative changes to boost revenues, minimize costs, and enhance customer experiences, the significance of an empowered workforce cannot be overstated. Our alliance with TM Forum will help foster a well-equipped workforce that can lead innovations rooted in industry standards, enabling CSPs to scale at speed their digital transformation and emerge as pivotal orchestrators in digital ecosystems." As part of the partnership, Tech Mahindra will create the largest TM Forum-certified talent pool within the CSP IT Service Provider ecosystem. Additionally, using its innovation labs, Tech Mahindra will work with

TM Forum to enable the adoption of industry standards in real-life scenarios, nurturing an ecosystem of innovation and tailored solutions to meet specific challenges that CSPs face today and in the future. George Glass, CTO of TM Forum, said, "To reignite growth, investment by CSPs must go beyond technology and focus on building a workforce trained on industry best practice and standards, and equipped with the skills needed to reimagine the role of telco in the digital era. The partnership with Tech Mahindra is a clear demonstration of the value this approach will bring, creating a talent-pool that's ready to lead CSP transformations with innovation and excellence." The partnership highlights the critical importance of expertise in industry standards such as Business Process Frameworks, Open Digital Architectures, Open Digital Frameworks, Open Application Programming Interface (API), and Standard Information Frameworks for leveraging technological and human ingenuity as CSPs transition to platform strategies. This includes adopting composable architectures, data and artificial Intelligence, automation, and cloud-native technologies to transform their operating models into an orchestrator of value within digital ecosystems. Furthermore, this partnership emphasizes Tech Mahindra's commitment to being a strategic partner for CSPs in their transformation journey.

Tech Mahindra and Cisco to Deliver AI-powered Firewall Modernization Solution for Global Customers



Tech Mahindra, a leading global provider of technology consulting and digital solutions to enterprises across industries, announced an expansion of its strategic partnership with Cisco to deliver a next-generation firewall (NGFW) modernization solution for their shared global customers. The partnership between Cisco and Tech Mahindra elevates standard firewall functions with sophisticated features such as unified policy management across on-premises and cloud environments. Additionally, it integrates Talos threat intelligence and delivers comprehensive malware defense for the network and endpoints, among other enhancements. The NGFW is designed to be flexible, adjusting to the ever-changing requirements of network environments and security risks, and is available in various deployment formats, including hardware, software, and virtual options. Kunal Purohit, Chief Digital Services Officer, Tech Mahindra, said, "Enterprises need a flexible approach that allows them to scale at speed while modernizing their network security. While firewalls are critical to the organization's network security, they can be time-consuming, complex, and expensive to deploy, manage, and operate. The partnership with Cisco marks a milestone in providing a unique, robust, efficient, and cost-effective solution for the firewall modernization roadmap." The partnership will further expand Tech Mahindra's security service portfolio, enhance market reach, and provide upskilling opportunities for its workforce. As per analyst reports, the global average cost of a data breach was $4.35 million in 2023. Cisco's Secure Firewall is a next-generation firewall, an essential tool for the security of your networks, that delivers extensive visibility and robust protection against a wide array of threats, including malware, known and unknown exploits, and web-based attacks, across applications, devices, users, and multi-clouds networks. Nick Holden, VP of Global and Strategic Partners & Ecosystem Co-Sell, Cisco, said, "As global customers continue to modernize their infrastructure, they'll need a next-generation firewall solution that scales as their network expands, combines multiple security functions into one platform, and provides threat intelligence across different security layers. Our partnership with Tech Mahindra offers these customers a specialized way to customize and implement these firewall capabilities based on their unique business and network needs." The partnership leverages Tech Mahindra's extensive network and security engineering consultancy resources, encompassing a robust team across key global markets, including the Americas, Europe, and Asia-Pacific. In 2023, Tech Mahindra also established a dedicated Cisco Business Unit to develop and implement services that build and maintain agile, secure, collaborative, and hybrid networks.

Yahsat Awards US$1.1 Billion Contract to Airbus for New Geostationary Satellites

Al Yah Satellite Communications Company PJSC (Yahsat) has awarded a AED3.9 billion ($1.1 billion) contract to Airbus Defence and Space SAS to build its new geostationary telecommunications satellites, Al Yah 4 and Al Yah 5. This significant step follows the signing of an Authorization-to-Proceed with Airbus in Q2 2023 to commence initial activities for the AY4 and AY5 satellite program. In Q3 2023, the UAE Government awarded an AED18.7 billion mandate to Yahsat for the provision of satellite communications capacity and managed services for 17 years, primarily using AY4 and AY5. Airbus will design and manufacture both satellites, along with providing ground control segment components. Each satellite will have a design life of 15 years, with launches planned for 2027 and 2028, respectively. The contract covers the full cost of the AY4 and AY5 procurement program, including spacecraft, ground segment infrastructure, and launch and insurance. Yahsat will initially fund the program using its own resources, ahead of receiving an AED3.7 billion advance payment from the UAE Government. The AY4 and AY5 satellites, based on the Eurostar Neo platform, will feature flexible multi-band payloads that can be reconfigured in orbit, adjusting coverage, capacity, and frequency as needed. These satellites will provide secure governmental communications over the Middle East, Africa, Europe, and Asia, replacing Al Yah 1 and Al Yah 2, which were launched in 2011 and 2012. Ali Al Hashemi, Group Chief Executive Officer of Yahsat, stated: "We are delighted to sign this contract with Airbus as part of our continuous efforts to enhance our satellite communications capabilities with the next generation of satellites. This is a

significant step in Yahsat's growth trajectory. The Al Yah 4 and Al Yah 5 satellites will enable us to provide the UAE Government with new cutting-edge solutions. Additionally, the two new LEO satellite platforms will support Yahsat's future direction of providing multi-orbit satellite solutions to its customers." Alain Fauré, Head of Space Systems at Airbus, added: "Marks a real milestone with Yahsat selecting our pioneering fully flexible satellite technology. Sixteen years ago, we signed our first contract with Yahsat, bringing the first sovereign telecommunications satellite to the UAE. And now, our long-standing relationship is moving up a gear with this contract for two Eurostar Neos, further strengthening Yahsat's in-orbit resources." Airbus is also developing the Thuraya 4 satellite (T4) for Yahsat Government Solutions and Yahsat's commercial satellite solutions arm, Thuraya. T4, based on the Eurostar Neo platform, is scheduled to launch in the second half of 2024 and enter service in the second half of 2025.

Zain Bahrain Demonstrates Commitment to Employee Wellbeing and Development

Zain Bahrain, a leading telecommunications provider, reaffirms its unwavering commitment to supporting the growth and wellbeing of its employees. As part of its holistic approach to employee wellness, the company has been implementing a range of initiatives to foster a healthy and supportive work environment for its employees to positively impact its people and help them reach their fullest potential. The telco has always prioritized employee engagement, health and wellbeing, diversity, equity and inclusion through various programs and activities. It has implemented a policy allowing employees to work remotely up to two days per week for a better work-life balance. Zain aims to create a more authentic employee experience centered on personal and career growth by giving its people the right tools and training courses to reach their goals. Also, in celebration of Global Wellness Day, Zain Bahrain has recently organized a walkathon for its employees in collaboration with City Center. It comes under its holistic wellbeing program, "Be Well," launched in 2021. This event aimed to encourage physical activity and camaraderie among staff members, highlighting the importance of prioritizing health and wellness in the workplace. The event included a free health monitoring station along with nutrition consultation. One of the recent key initiatives introduced by Zain Bahrain is the employee diversity and inclusion survey and the annual employee engagement survey, which proves the telco's solid commitment to employees as it seeks to exceed the benchmark for high-performing organizations. Zain Bahrain's initiatives have yielded significant results in supporting employee wellbeing. The telco's mental health awareness campaigns, fitness challenges, and access to wellness resources have fostered a culture of health and wellness within the organization. These efforts are setting a new standard for employee support and engagement in the telecom industry and redefining a healthy workplace.

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ARTICLE

Subsea Cable Route Evolution in 2024

The global requirements for faster and securer connectivity continue to accelerate. The developing nations in Africa, Asia, and the Middle East are particularly growing more digital, while the world's more developed conomies continue to grow more data hungry because of emerging technologies thriving on 5G networks.

In response to this booming demand, China Mobile International Limited (CMI) is investing heavily in related submarine cable infrastructure.

Part of four new cable systems – 2Africa, IAX, IEX, and PEACE – are all planned to go live this year, when a number of other submarine cable systems are also scheduled. Taken together with their existing cable projects, these new systems will create an interconnected backbone for international data traffic, bolstering these transport routes between Asia and the rest of the world for years to come.

Unlocking a continent: The 2Africa cable

A study from RTI estimated that 2Africa's economic impact in Africa will be a boost of $26.2 billion to $36.9 billion within two to three years of the system's activation. This is equivalent to around 0.5% of Africa's GDP.

Circumnavigating the entire African continent and linking it to Europe and Asia, 2Africa is set to be the largest submarine cable system ever deployed, spanning over 45,000km. With 46 planned cable landing stations, the 2Africa system will directly serve 33 countries in Africa, Asia, and Europe with high quality and highly reliable connectivity.

Equipped with 16 fibre pairs and a capacity of 180Tbps, the cable is exceptionally well equipped to deal with the connectivity needs of the entire African continent.

2Africa is owned by a consortium comprising major players from across all three continents: Bayobab, Center3, CMI, Meta, Orange, Telecom Egypt, Vodafone Group, and WIOCC.

The impact that 2Africa is expected to have on the African continent cannot be understated. The continent is growing increasingly digitalised, with data usage, especially mobile data usage – booming. In the 2023 Mobility Report, Ericsson found that Sub-Saharan Africa is the fastest growing region in the world when it comes to total mobile data traffic, with a CAGR of 33% anticipated between 2023 and 2029. As such, access to high quality submarine cable infrastructure will soon become imperative for these nations to make the most of emerging technologies and transform the local economy. This is especially true for nations like the Democratic Republic of the Congo, which is currently served by just a single existing submarine cable – the West Africa Cable System (WACS), which has been in operation for over 12 years.

For comparison, WACS, even after being upgraded in 2015 and 2019, only has a total capacity of 14.5Tbps over its four fibre pairs. 2Africa, on the other hand, has a capacity of 180Tbps over its 16 fibre pairs. The cable is expected to be operational in 2024, with the PEARLS branch – which extends the system to Oman, the UAE, Qatar, Bahrain, Kuwait, Iraq, Pakistan, India, and Saudi Arabia – planned for service in 2025. The addition of PEARLS will not only greatly enhance the 2Africa cable's connectivity to the Gulf region, furthermore, to offer further connections to the entire APAC region through CMI's self-invested cables.

Diversify and expand: The PEACE cable

In contrast to the near ubiquitous nature of the 2Africa cable, the PEACE cable system is far more targeted.

Circumnavigating the entire African continent and linking it to Europe and Asia, 2Africa is set to be the largest submarine cable system ever deployed, spanning over 45,000km. With 46 planned cable landing stations, the 2Africa system will directly serve 33 countries in Africa, Asia, and Europe with high quality and highly reliable connectivity.

Spanning roughly 15,000km, this route connects Marseille, France, to Karachi, Pakistan, with an additional branch extending to Mombasa, Kenya, and Victoria, Seychelles.

The PEACE system operates on an open-cable model and is committed to providing neutral, flexible and non-differentiated interconnection services for various operators, OTTs and enterprises across the regions. The system is designed for a maximum capacity of 192Tbps and offers substantially reduced network latency by

adopting the shortest direct route between Asia, Africa, and Europe. It also supports customized cooperative solutions and provides more flexible business models to help customers achieve autonomous and customizable network-building conditions.

The cable was activated at the end of 2022 and, since then, plans to expand the cable yet further to Singapore have been announced for 2024. This will expand the cable's role considerably, making it a major Asia-Europe interconnection – indeed, making it the fastest express route between Southeast Asia and East Africa.

Singapore is already a major data hub for CMI, which has invested in over 10 cables there connecting Inner Asia to Europe. Using these various cable resources, CMI can provide connectivity from Europe to Africa via Djibouti to Asia via numerous routes.

It is worth noting that this is just a small part of PEACE's overall expansion plans, which include growing the system to 25,000km in length and landing in over 20 countries.

PEACE is being co-created by a consortium of 12 industry partners, including CMI, China Unicom, China Telecom, Ooredoo, Orange, and Telecom Egypt.

A wealth of opportunities: The IAX & IEX system

Finally, this year will see the further development of a pair of interrelated systems of great interest to the global submarine cable community: the India Asia Xpress (IAX) cable, expected to be ready for service later this year, and the India Europe Xpress (IEX) system, which will be ready next year.

IAX will stretch from Mumbai, India, to the Maldives, and onwards to Singapore, with additional branches extending to Thailand and Sri Lanka. IEX, meanwhile, will travel westwards from Mumbai, through the Red Sea and the Mediterranean Sea, before landing at its final destination in Savona, Italy.

Combined, these two systems will provide more than 200Tbps of capacity over more than 16,000km, offering additional diversity. As the world's fastest growing digital economy and occupying a crucial junction for international data traffic, linking Southeast Asia to Europe, India is a major data hub in its own right. Both APAC and Europe are already highly developed when it comes to submarine cable infrastructure, but the sheer scale of the data growth expected over the coming decade is making the further development of these state-of-the-art cables highly attractive.

IAX and IEX will play a major role in meeting that need, offering customers alternatives on some of the most popular data routes in the world.

A new data backbone for Africa, Asia, and the Middle East

For CMI, these new resources will operate synergistically with their existing carrier infrastructure, like the South East Asia–Middle East–Western Europe 5 (SeMeWe-5) and Asia-Africa-Europe 1 (AAE-1) cables. When combined, these cable routes will serve to enrich regional network connectivity along the Middle Eastern and African coastlines and provide advantageous regional transmission networks for local carriers.

Naturally, the advent of new, more advanced data transport systems will require the evolution of the relevant interconnectivity hubs themselves. In Marseille, for example – a city where all three of the above systems converge in Europe – CMI is making significant investments to offer a wide range of IP services and strengthen the synergy between its existing and new cable systems.

Out with the old, in with the new

Of course, the development of these four cables is only the beginning of our submarine cable journey in 2024.

Cables built around the turn of the century that were once state-of-the-art are now beginning to reach the end of their lifespan, often requiring major investments to remain operational. While advances in technology – particularly Submarine Line Terminal Equipment – are allowing these cables to last longer than ever before, even beyond the quarter-century milestone, the need for new cables will only increase as we approach 2030.

Finally, it is also worth mentioning the incredible importance that cable route diversity continues to have for both public and private sector customers around the world. Not only does having multiple routes to choose from drive competition and therefore more competitive pricing, but it also allows greater flexibility and control of where and how your data is transported. With network security playing an increasingly important role in operators' decision making, new routes will undoubtedly be developed to cater for these more diverse customer needs. These are all additional motivating factors for CMI's broader investment in the Asia–Europe and Asia–Africa data transport markets.

Therefore, as older cables approach the end of their lifespan and enterprises demand even higher standards of latency and capacity, with governments prioritising network resilience globally, it can be anticipated that numerous cable projects will be annouced in the coming years. When combined with initiatives such as 2Africa, PEACE, and IEX/IAX, these cables will establish a network that significantly enhances the interconnected connectivity between Africa, Asia, and Europe.

SUBEX

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REGIONAL NEWS

TDRA Supports the Implementation of National Digital Accessibility Policy

In the context of enhancing the digital knowledge society and economy, the Telecommunications and Digital Government Regulatory Authority (TDRA) emphasizes the significance of implementing the principles outlined in the National Digital Accessibility Policy adopted by the cabinet, to facilitate access to diverse digital services for all segments of society, including people of determination and senior citizens. The National Digital Accessibility Policy is based on several international references and agreements. Its goal is to ensure that people of determination have equal opportunities to access services and information provided on various entities' platforms and websites. This entails removing barriers that hinder their ability to benefit from these services and platforms. This policy aligns with The UAE Government Charter for Future Services to prioritize people when designing services and policies. It emphasizes the importance of listening to customers' needs and delivering services that offer exceptional value and a seamless, proactive experience, regardless of individuals' capabilities or social backgrounds. This policy contributes to enhancing the UAE's leadership in the field of digital transformation, as well as to the country's contribution to the process of sustainable development and the humanitarian goals set by the United Nations in this context and its slogan of "leaving no one behind." The policy outlines a set of general principles that digital government service providers must follow to enhance smart services and applications. These principles ensure that smart services and applications must be supported by technologies that enable people of determination to access and benefit from these services just like for others. H.E. Eng. Majed Sultan Al Mesmar, TDRA Director General, highlighted the importance of implementing the directives and standards stipulated in the policy. He said: "TDRA is confident that government entities will spare no effort in putting this policy into effect, in line with the objectives of "We the UAE 2031" vision. This vision emphasizes establishing an advanced and integrated social enabling system to unlock the potential of all UAE citizens and fosters the development of a Forward Ecosystem. By embracing the next generation of advanced digital technologies, we aim to create the smartest, most dynamic agile government in the world." Al Mesmar added: "The National Digital Accessibility Policy is in line with the directives of the wise leadership to enable people of determination as they are a valued group of society, and based on the culture of solidarity that characterizes UAE society." Eng. Mohammad Al Zarooni, TDRA Deputy Director General for the Information and Digital Government Sector, said: "TDRA is tasked with ensuring the provision of suitable digital infrastructure to enhance digital accessibility and elevate the quality of digital services provided to citizens and residents. This entails formulating the requisite regulatory framework to achieve the policy's objectives and ensure their efficient execution. Recently, TDRA introduced the UAE Design System 2.0 for government websites, prioritizing comprehensive accessibility within this framework. By adhering to the Web Accessibility Initiative (WAI) guidelines and the Web Content Accessibility Guidelines (WCAG) 2.1, federal government entities in the UAE are guided to achieve compliance with the "AA" level classification." Furthermore, TDRA endeavors to enhance Public-Private collaboration, fostering investment in digital infrastructure and the advancement of modern technologies. This collaborative effort serves to accelerate digital transformation across the nation and plays a pivotal role in attaining the policy objectives. In collaboration with federal and local government entities, TDRA is actively engaged in developing programs and initiatives aimed at enhancing digital accessibility and delivering comprehensive and efficient digital government services to cater to all segments of society, including people of determination and senior citizens, ensuring inclusivity and equal access to essential digital services.

TDRA Celebrates World Telecommunication and Information Society Day

The Telecommunications and Digital Government Regulatory Authority (TDRA), celebrated World Telecommunication and Information Society Day (WTISD) 2024 on May 17, with the participation of UAE telecom service providers, Huawei, and various government entities, along with other local and regional partners. The celebration was held virtually under the slogan "Digital Innovation for Sustainable Development" to raise awareness of the pivotal role digital innovation plays in addressing the world's most pressing challenges, such as combating climate change and eradicating hunger and poverty. During the event, global efforts to advance digital transformation were highlighted, emphasizing the potential of the Internet and other information and communication technologies to benefit societies and economies worldwide. H.E. Eng. Mohammed Al Ramsi, TDRA Director General for the Telecommunications Sector, delivered the opening speech expressing gratitude to the partners for their participation in celebrating WTISD. He said: "Digital innovation has emerged as a key driver for achieving comprehensive and sustainable development. It has opened new horizons for development, introduced modern technologies, and created new opportunities, expanding the potential for societies to actively participate in the development process. Furthermore, digital innovation has enhanced access to health and education services, created job opportunities, and promoted transparency, contributing to a sustainable economy for all." He added: "The UAE demonstrates its strong commitment to digital innovation as a key driver for sustainable development and societal advancement towards a more prosperous and sustainable future. The country places significant emphasis on the development of sustainable energy and environmental protection, leveraging digital technology to enhance resource efficiency and promote environmental sustainability. The UAE adopts comprehensive strategies to foster digital innovation across various sectors, including education, health, infrastructure, smart government, and the private sector. These strategies encompass the provision of advanced technological infrastructure, the encouragement of entrepreneurship and innovation, and the continuous training and development of human resources." During the ceremony, TDRA and the participants discussed various topics, including the country's efforts to accelerate and enhance digital transformation by leveraging digital innovation to benefit humanity. The event featured presentations by experts from Etisalat, du, and Huawei, who explored how advanced 5G and digital innovation can expand opportunities and align capabilities with sustainable development goals. Additionally, students from the Seeds for the Future program, supported by the ICT Fund and Huawei, showcased their innovative initiatives in the fields of medicine and the environment. These presentations reflected the Program's objectives to broaden the students' innovative thinking, prepare them for the digital transformation era, and enhance their skills to meet the demands of the modern-day.

CST Governor Chaired the Saudi Delegation at the World Summit on the Information Society "WSIS+20"

H.E. Dr. Mohammed Altamimi, the Governor of the Communications, Space and Technology Commission (CST), has chaired the Saudi delegation at the opening of the World Summit on the Information Society "WSIS+20" held in Geneva, Switzerland, with the attendance of Ms. Doreen Bogdan-Martin, Secretary-General of the International Telecommunication Union (ITU) and Mr. Abdulmohsen Majed Bin Khothaila, Saudi Arabia's Permanent Representative to the UN in Geneva, and the participation of senior officials from governmental and private entities. H.E. highlighted that Saudi Arabia is keen to promoting collaboration, opening enabling paths to implement "WSIS +20" outcomes and achieving SDGs, through our collective efforts to fulfill a sustainable digital future for all. Altamimi indicated that sustainability is one of the Kingdom's top priorities which leads to achieving 96% of the ITU's "Connect 2030" program during 2022, through its initiatives that support innovation in the ICT sector, integrate to bridge the digital divide, and promote collaboration among ITU's members and stakeholders. H.E. concluded his speech by noting the Kingdom's aspirations to open new horizons through new space technologies to achieve progress and sustainability for all. This includes holding the first Space Debris Conference in collaboration with the International Telecommunication Union (ITU) and the United Nations Office for Outer Space Affairs (UNOOSA), with the aim of raising international awareness about the challenges posed by space debris and creating a global platform to address this major issue. "WSIS +20" is an annual forum organized by ITU to highlight the progress of it projects and outcomes and promote international collaboration. In this year's edition, the forum is celebrating 20 years of the international effort in harnessing technology to enable sustainable development and bridge the digital divide.

Accelerate the Progress Towards Achieving the SDG: Saudi Arabia Perspective

Saudi Arabia represented by the Communications, Space and Technology Commission (CST) held the "Accelerating SDGs Development "workshop during the World Summit on the Information Society "WSIS+20" in Geneva, with the attendance of representatives of the participated entities and international organizations. The workshop reflects the Kingdom's leadership in achieving the digital sustainable development goals through the initiatives of government entities in innovation and emerging technologies, with the participation of representatives and experts from the Ministry of Interior, the Digital Government Authority, Saudi Data and AI Authority (SDAIA), and the National Cybersecurity Authority (NCA).

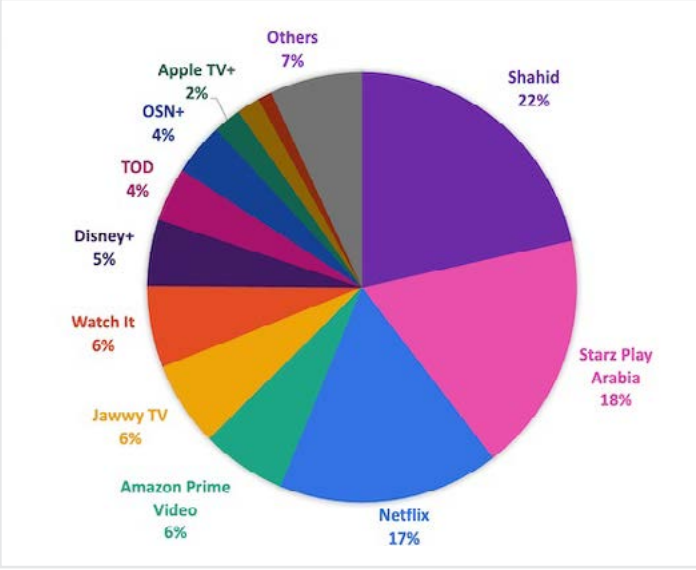
Qatar's President of the Communications Regulatory Authority, Eng. Ahmad Abdulla AlMuslemani, Nominated as Chair-designate for ITU's Next Plenipotentiary Conference (PP-26)

Qatar, the host country of the next International Telecommunication Union (ITU) Plenipotentiary Conference (PP-26), has nominated Eng. Ahmad Abdulla AlMuslemani, President of the Communications Regulatory Authority (CRA), as Chair-designate. The ITU Plenipotentiary Conference (PP) is the highest decision-making body of ITU, the UN Agency for Digital Technologies. PP-26 will take place in Doha, Qatar, from 9 to 27 November 2026. "ITU's next Plenipotentiary Conference in Qatar will set the stage for a digital future where human-centered technology drives progress and inclusion for everyone," said ITU Secretary-General Doreen Bogdan-Martin. "Under Eng. Ahmad Abdulla AlMuslemani's leadership, I'm confident that PP-26 will make great strides in advancing ITU's mission to connect the world meaningfully and sustainably." Delegates representing ITU's 193 Member States meet every four years at the Plenipotentiary Conference to set out the organization's strategic and financial plans. They also elect ITU's senior management team, the Member States of the ITU Council, and the members of the Radio Regulations Board. His Excellency Mr. Mohammed bin Ali Al Mannai, Qatar's Minister of Communications and Information Technology, said: "This appointment underscores Qatar's commitment to shaping the future of global communications and ensuring equitable access to information and communication technologies for all. We are confident that AlMuslemani's extensive experience will be instrumental in guiding the conference towards impactful resolutions and fostering a collaborative environment for the ITU member states." As Chair-designate, AlMuslemani will work with ITU and its Member States to prepare for PP-26, which will guide the organization's work through 2030 in overseeing global radio spectrum allocation, creating global technical standards, and advancing sustainable development through connectivity to digital technologies. "Qatar has a proven track record of successfully organizing and hosting major international events. We are confident that Qatar will be an exemplary host for the ITU Plenipotentiary Conference. It will be our honor to welcome the global ICT community to Doha, where we will share our rich culture, heritage, and hospitality. This conference presents an invaluable opportunity for us to collectively advance the global ICT agenda, fostering innovation and cooperation that will shape the future of digital technologies worldwide," said AlMuslemani. The decision to host PP-26 in Doha was adopted by consensus by ITU Member States in October 2022 at ITU's Plenipotentiary Conference 2022, in Bucharest, Romania. In its bid to host PP-26, the country noted its strong infrastructure for information and communication technologies as well as its status as a world leader in organizing and hosting major events, including high-level global and regional conferences across a variety of sectors. As CRA President, AlMuslemani leverages over 18 years of rich experience in the information and communication technologies sector to strategically shape regulatory policies and digital infrastructure development. His leadership plays a crucial role in aligning Qatar's digital transformation initiatives with the National Development Strategy and Digital Agenda 2030. AlMuslemani holds a Master's degree in Communication Systems from the Swiss Institute of Technology and a Master's in Management from HEC Paris in Qatar. He also obtained a Bachelor's degree in Electrical and Computer Engineering from Ohio State University, USA. His combined technical and managerial expertise spans Big Data, the Internet of Things, Cloud Computing, and notably, the deployment of 5G networks, which are pivotal in enhancing connectivity and technological access throughout Qatar. This expertise will undoubtedly add significant value to the PP-26 discussions.

Communications Regulatory Authority State of Qatar
هيئة تنظيم الاتصالات دولة قطر

MENA Streaming Revenue to Reach US$1.2 Billion at End of 2024

Total streaming revenues in the MENA region exceeded $1bn in 2023 and are predicted to rise by a further 13% to more than $1.2bn by the end of this year, according to new research from media analysts Omdia. Local operators Shahid and StarzPlay are leading streaming growth with the bulk of the market share, says the report. Shahid, which is part of MBC, leads the MENA streaming video market with 22% of the market share, amounting to 3.6 million subscribers by the end of 2023. An extensive offering of local Arabic content, "which resonates deeply with regional audiences, especially during Ramadan," is key in drawing subscribers to the service, says Omdia. The holy month of Ramadan remains a peak period for engagement with drama providers in the region. Platforms like ADTV and Watch IT saw significant popularity during 2023, catering to the region's demand for drama content during this time. StarzPlay follows closely behind Shahid with an 18% market share and 3 million subscribers. Omdia said that StarzPlay has "successfully identified and filled content gaps in the region, bolstering its competitive edge." Driving growth for the service is the streaming of exclusive content, with standouts including AMC acquisition The Walking Dead: Dead City, and sports coverage, with StarzPlay having secured exclusive rights to events such as the Cricket Asia Cup in September 2023 and the Six Nations in March 2024. StarzPlay has also found success with the launch of its AVOD & FAST service, Starz On, which had its soft debut in November 2023, before launching in full in March. The service features 50 FAST and linear channels, with plans to expand the content offering to more than 25,000 hours and over 100 channels this year. Speaking at Cabsat 2024 in Dubai last week, Maria Rua Aguete, Senior Director of Media and Entertainment at Omdia, highlighted the region's significant growth potential. "MENA is a growth area with huge potential. The top three players – Shahid, StarzPlay, and Netflix – each have unique strategies and complementary offerings. In the advertising space, FAST is currently low in this region, but we expect significant growth over the next four years, with global players like Samsung entering the market."



Saudi Arabia Participates in the United Nations Committee on the Peaceful Uses of Outer Space (COPUS)

Represented by the Communications, Space, and Technology Commission (CST) and the Saudi Space Agency (SSA), Saudi Arabia participated in the 67th session of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), held in Vienna, Austria, from June 19 to 28, 2024. The participation indicates the Kingdom's commitment to promoting international collaboration, realizing the peaceful and sustainable utilization of outer space, and highlighting its efforts in this vital sector. The participating delegation held the "Saudi Towards Space: Igniting the Space Sector" meeting, which was attended by over 80 leaders and specialists of the sector to discuss collaborative opportunities that will elevate the international space industry towards new horizons. The delegation showcased the Saudi Space sector progress, which was made possible through the country's leadership support, along with the Kingdom's strides in promoting sustainability through many active initiatives including the organization of the Space Debris Conference, and its constant presence in international forums which reflect its commitment in achieving the peaceful use of outer space according to international principles. Space exploration was also discussed, with Saudi Arabia highlighting it mission towards space which achieved many successes such as; conducting 14 pioneering educational experiments and researches. Along with showcasing the developments of the Saudi Space sector's regulatory framework and governance. During the meeting many topics and visions were discussed, aimed at strengthening international partnerships to support space activities, promoting the Kingdom's endeavors to develop the sector and stimulating research and innovation in this field. This participation affirms the Kingdom's dedication to enhancing international collaborative efforts to ensure the peaceful and sustainable use of outer space.

CST Announces the Qualified Applicants for the Specialized Radio Network License to Serve the Industrial and Business Sectors

The Communications, Space & Technology Commission (CST) announces the qualification of Saudi Telecommunications Company (STC), and Global Digital Integrated Solutions Company (Aramco Digital) to compete for the specialized radio network license. These applicants will undergo the evaluation phase as per the published Information Memorandum document. CST clarifies that the Specialized Radio Network represents a national objective to serve the industrial and business sectors through a dedicated network, operating on the latest global wireless technologies. This network will aim to cater to the specialized needs of various sectors and aims to achieve the Kingdom's leadership in providing specialized broadband communications services. The provision of such a license would contribute to the digital transformation in several sectors such as industry, energy, transport, health and more. It would also enable the 4th industrial revolution and industrial (IoT) applications, CST indicated that it will announce the winner of the competition for the specialized radio network license after completing the technical assessment stage of the qualified applications.

Algeria Makes Strides in Digital Transformation

Algeria has made significant strides in digital transformation, as highlighted by researchers and specialists in Information and Communication Technologies (ICT) during a meeting organized by the National Institute of Global Strategy Studies (INESG) on digital development in Algeria. Younes Grar, a digitization specialist and consultant, noted Algeria's progress in deploying high-speed internet in 2023, citing the increasing number of subscribers to the fiber optic network as evidence. He emphasized that various sectors have successfully implemented the national digitization strategy to streamline operations. For instance, Grar mentioned the Ministry of Higher Education and Scientific Research, where academics can now perform tasks like registration and fee payments online, contributing to a "paperless" system. Yazid Aguedal, an ICT expert, discussed the transition from traditional paper-based processes to digital ones, highlighting the recent agreement between the High Commission for Digitization and Huawei, a Chinese company, to establish the Algerian National Center for Digital Services. He emphasized this center's significance in project management and goal setting in the digital sphere. Mounir Moncef, Director of Coordination and Monitoring of Modernization Projects at the Ministry of Finance, stressed the importance of cooperation, partnership, coordination, communication, and knowledge to achieve digitization objectives and overcome obstacles. During the event, INESG honored Prof. Youcef Mentalecheta for his contributions to the ICT sector in Algeria. INESG Director-General Abdelaziz Medjahed encouraged students to follow Mentalecheta's example, highlighting his role as a mujahid and researcher in advancing the country's telecommunications system. Mentalecheta advised younger generations to equip themselves with knowledge and religion, which he described as "keys to success," and emphasized the importance of involving Algerian talents abroad in the nation's building and development efforts.

Arab Advisors Group Releases Comprehensive Analysis of 5G Rates in the GCC

Arab Advisors Group, a leading research and consulting company specializing in telecommunications and media in the Arab world, is proud to announce the release of its latest report titled "A Comparative Analysis of 5G Rates in the GCC." This groundbreaking report offers a detailed examination of 5G service rates across the Gulf Cooperation Council (GCC) countries, providing valuable insights for stakeholders in the telecommunications industry. The GCC region, comprising Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates, has been at the forefront of 5G deployment, leading to rapid technological advancements and enhanced connectivity. The report by Arab Advisors Group meticulously compares 5G service rates, highlighting the variances and similarities in pricing strategies among these countries.

Key Findings:

- Rate Comparison: The report delves into the pricing structures of leading telecommunications providers in each GCC country, offering a side-by-side comparison of 5G service rates. This includes an analysis of various packages and plans available to consumers and businesses.
- Market Trends: Insights into market trends and the adoption rates of 5G services in the GCC, showcasing how different markets are evolving and what factors are driving growth.
- Consumer Impact: Examination of how 5G rates impact consumers and businesses, including affordability and accessibility of high-speed connectivity in urban and rural areas.
- Future Projections: Forecasts on the future of 5G in the GCC, considering current market dynamics, regulatory environments, and technological advancements.

"The introduction of 5G technology has revolutionized the telecommunications landscape in the GCC, offering unprecedented speeds and connectivity. Our comparative analysis provides a critical look at how these services are priced and the implications for consumers and businesses in the region," said Faten Bader, General Manager of Arab Advisors Group. "This report is an essential tool for industry stakeholders seeking to understand the competitive landscape and make informed decisions." The "Comparative Analysis of 5G Rates in the GCC" report is now available for purchase on the Arab Advisors Group website.

SAIP and CST Have Launched a Software Copyright Protection Guide

The Saudi Authority for Intellectual Property (SAIP), in collaboration with the Communications, Space and Technology Commission (CST), has launched a software copyright protection guide to protect software and digital products, enhance awareness, and promote innovation and investment in the IT sector. The guide is a collective effort between SAIP and CST to regulate and safeguard intellectual property in vital areas of the ICT sector, especially in software due to its significant role in enhancing the IT sector and its impact on the economic and investment aspects. The guide also encourages reliance on emerging technologies. Furthermore, the guide highlights software copyright rights based on the copyright protection system and its implementing regulations. It also covers the transfer of technical works, regulation of contractual relationships and licensing agreements, and provides guidelines for registering technical works and procedures for receiving and investigating complaints of violations. The Software Protection Guide includes computers, databases, digital platforms, and electronic applications. It supplements the copyright protection system, its implementing regulations, and the optional registration regulations in SAIP.

More Than 8 million Cyber Threats Thwarted in Bahrain Last Year

Cybersecurity firm Trend Micro said it thwarted more than eight million threats in Bahrain last year, including 1.9m email threats and 1.1m malicious URL attacks. Additionally, it blocked more than 3.5m malware attempts, highlighting its role in protecting digital assets in the country. The firm blocked a record 161 billion threats globally in 2023, a 10 per cent rise year-on-year, while warning attackers are shifting tactics towards more sophisticated attacks targeting fewer, high-value victims for greater financial gain. The findings were revealed in Trend Micro's 2023 Annual Cybersecurity Report, titled 'Calibrating Expansion.' It underscores the need for businesses to take a proactive approach to managing cyber risks across their entire attack surface in evolving threat landscape. The report noted a significant 349pc increase in email malware detections globally compared to 2022, while detections of malicious and phishing URLs dropped 27pc. Cloud applications emerged as a major threat vector, with Trend Micro's Attack Surface Risk Management (ASRM) recording nearly 83bn access attempts. "As data breaches become more frequent and sophisticated, organizations need a proactive and comprehensive approach to securing their digital infrastructure," said Trend Micro Middle East managing director Rasheed Al Odah. "We are committed to strengthening Bahrain's cybersecurity landscape with cutting-edge technologies and expertise. Our annual report reflects our dedication to creating a secure and resilient environment for businesses to thrive," Mr. Al Odah added. Bahrain's National Cyber Security Strategy (NCSC) emphasizes the importance of robust cybersecurity measures for organizations to flourish in the digital age. Trend Micro aligns with this vision, offering innovative solutions and fostering resilience to navigate the complexities of the digital world.

Morocco Launches Program to Expand Internet Access to 1,800 Rural Areas

Morocco announced a new program to bring internet access to 1,800 rural areas in the coming months, marking a significant step in its National Plan for the Development of High and Very High Speed Broadband. Digital Transition and Administrative Reform Minister Ghita Mezzour unveiled the initiative, which builds on the ongoing first phase of the plan that aims to cover 10,740 previously unconnected rural areas. This program aligns with Morocco's soon-to-be-launched National Digital Development Strategy 2030. The strategy also includes the introduction of 5G technology, expected to play a key role in the country's modernization. By embracing digital tools, Morocco seeks to boost economic growth, improve public services, and foster broader digital inclusion. The internet access program is projected to improve the lives of millions in rural areas. Residents will gain access to various online public services through the government's established network of 600 digital platforms, offering essential services like healthcare appointments and administrative procedures. Improved internet connectivity is expected to have a positive impact on education, healthcare, and entrepreneurship. Students will benefit from online learning resources, patients will have the possibility of remote consultations, and local businesses will have the opportunity to expand their reach through e-commerce. Morocco's commitment to digital transformation demonstrates its resolve to bridge the digital divide and integrate all regions of the country into the global digital economy.

German Group Rittal in Deal to Boost UAE Digital Infrastructure

The UAE's Artificial Intelligence, Digital Economy, and Remote Work Applications Office has signed a strategic agreement with Rittal FZE (Subsidiary of Rittal GmbH & Co. KG, Herborn, Germany), a leading global provider of solutions for industrial enclosures, power distribution, climate control, and IT infrastructure. This partnership aims to collaborate on various AI initiatives, enhance AI adoption and learning, and strengthen the robust digital infrastructure of the UAE through international joint efforts. The MoU was signed by Saqr Binghalib, Executive Director of the UAE's Artificial Intelligence, Digital Economy, and Remote Work Applications Office, and Syed Tahir Nazir, Managing Director of Rittal FZE, during the AI Retreat 2024, a one of its kind events held in Dubai. It was organized recently by the Dubai Centre for AI Applications in collaboration with the National Program for Artificial Intelligence. The AI Retreat 2024, which was aimed at accelerating adoption of AI applications, drew participation from over 2,000 decision-makers, experts, and officials from both the government and private sectors. Saqr Binghalib emphasized that the UAE Government focuses on building skills and talents as a key element in the digital development journey and in creating a future based on intellect and creativity. "Strengthening partnerships between the government and the private sector contributes to enhancing the country's position as a global hub for the AI sector, reinforcing its active global role, and supporting the national strategies' goals of building future competencies and equipping them with the necessary tools for development and advancing towards a future based on digital skills," he added. Syed Tahir Nazir, the Managing Director, Rittal FZE said: "We are fully committed and support the vision of the Office of Artificial Intelligence, Digital Economy, and Remote Work Applications during our discussion and agreed with Saqr Binghalib." "Rittal FZE is committed to support capacity building, knowledge enhancement, and technology advancements through innovations in the field of AI and other smart applications, especially to support programming in the field of Robotics and Industry 4.0 system and applications along with supporting Green Technologies," he stated. "Rittal continues its efforts for environmental protection and reducing carbon footprint with its innovative products and solutions through collaborations with government and public sectors to secure a better future for our communities and next generations. We are excited to be a partner of AI department and are looking forward to working with Binghalib for a mutually successful collaboration," he added.

Digitel Launches South Sudan's First 5G Trial

Digitel South Sudan claims to have launched the country's first 5G trial. The telco has outlined its intentions to improve South Sudan's digital divide with the technology. According to Eye Radio, a local publication, the telco carried out the Non-Standalone 5G trial last week in Juba, the country's capital. The telco partnered with ZTE to carry out the trial which used 60 MHz of spectrum in the 3.5 GHz band. Digitel said on Facebook that the trial registered a download speed of 1.2 Gbps. "We want to use technology to improve the products and services we bring our people," said Digitel executive VP De Chan Awol. "We know very well that South Sudan has a lot of places that doesn't have connectivity." It's noted that only 12 percent of the country has access to Internet services, making the country, which has a population of around 11 million, one of the least connected places in the world. Digitel, which offers 2G, 3G, and 4G LTE services, has not yet given a date for when it plans to launch 5G services, though said that it will provide 5G services beyond just the capital city. Founded in 2020, Digitel is the only South Sudan-owned telco in the country, competing against South African telco MTN and Kuwait-based Zain Telecom.

Tunisia and Italy Sign MoU to Enhance Digital Technology and Industrial Cooperation

Tunisia and Italy have signed a memorandum of understanding (MoU) to advance digital technology and its applications in industry. The agreement was signed by Tunisia's Communication Technologies Minister Nizar Ben Neji and Italy's Minister of Enterprises and Made in Italy, Adolfo Urso. The MoU includes the establishment of two national focal points in each country and the creation of a joint team. This initiative aims to boost economic and industrial cooperation, facilitating investment and initiatives by Tunisian and Italian companies through business forums, conferences, and workshops. The agreement highlights a shared commitment to enhancing cooperation in technology transfer by exchanging experience and expertise in research, innovation, and training. It also aims to facilitate access to and implementation of AI projects in both the public and private sectors. Minister Nizar Ben Neji emphasized the importance of this cooperation, noting Italy as a strategic partner for Tunisia, particularly in digital technology and entrepreneurship. Minister Urso expressed Italy's readiness to support Tunisia's digital transition through the exchange of experiences and expertise in developing digital infrastructure, artificial intelligence, and aerospace activities.

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ARTICLE

Managing Dominican Republic's Digital Frontiers Amidst Regional and Global Development Challenges

Julissa Cruz Abreu
Executive Director
Dominican Telecommunications Institute (INDOTEL)
Dominican Republic

The Dominican Republic, celebrated for its cultural vibrancy and picturesque landscapes, is now distinguishing itself for the transformation of its Information and Communication Technology (ICT) sector, accelerating digitalization, and empowering digital-led innovation across its economic sectors.

As one of the world's fastest-growing economies, amid this transformative era, a notable shift toward cloud computing and advanced business applications marks a departure from traditional connectivity services, highlighting a trend where businesses are increasingly leaning towards more specialized technological solutions. Having grown at a steady annual growth rate of about five percent over the past several decades, the Dominican Republic has positioned itself as Latin America's seventh-largest economy, with the nation aspiring to become an advanced economy over the next three decades.

> *The Dominican government, primarily through its telecommunications regulator Indotel, has been instrumental in driving digital inclusivity and enhancing connectivity across the nation with a special focus on governance and regulatory frameworks, broadband infrastructure and access, education and digital capacity-building, digital government solutions for citizens, the digital economy, cybersecurity, and technological innovation at large as a part of the national Agenda Digital 2030.*

Similar to advanced digital markets such as the UAE, the Dominican Republic has also created free zones, which offer attractive investment opportunities for expanding value-chains in the electronics and medical devices market segments. Enabled by policies and the right enabling regulatory environment, the Dominican Republic has become one of the most attractive foreign direct investment (FDI) environments in the world.

Empowering Through Connectivity: The Role of Government and Indotel

The Dominican Republic, as the Caribbean's largest economy, also has the strongest Internet connectivity in the region, comprising data centers, disaster recovery systems, and business continuity solutions using state-of-the-art digital infrastructure, which includes terrestrial fiber, mobile, and satellite-based broadband connectivity.

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From Vision to Reality: Expanding Digital Frontiers

A key pillar of the Dominican Republic's digital strategy is the expansion of its fiber-optic networks. Spearheaded by initiatives like the collaboration between INDOTEL and Wind Telecom, these projects aim to deliver high-speed, low-latency internet services to previously underserved regions, dramatically improving the quality of life and economic opportunities for residents in areas like Villa Gautier, San Pedro de Macorís. Additionally, the extension of Telxius' SAm-1 submarine cable enhances global connectivity, ensuring the Dominican Republic remains a competitive player in the digital arena.

> *Indotel is actively supporting the national Digital Republic program, a multi-pronged initiative focusing on Education, Access, Productivity and Employment, Digital Government, Cybersecurity, and Social Inclusion.*

Navigating Economic Landscapes: The Impact of ICT on Economic Dynamics

The burgeoning growth of the ICT sector is a boon for the Dominican economy, fostering increased consumption and spurring capital investment. This sectoral expansion is buoyed by a favorable external demand environment, though it is not without its challenges. Global economic slowdowns and inflationary pressures loom as potential impediments to sustained growth, highlighting the need for agile and adaptive strategies within the sector to navigate these turbulent economic waters and harness emerging opportunities effectively.

Challenges and Opportunities in the Digital Age

As the country transitions to modern digital services, it encounters significant challenges such as the need for technological upgrades and heightened cybersecurity measures. These challenges necessitate substantial infrastructural and regulatory adjustments, ensuring that sensitive data is robustly protected and trust in digital platforms is maintained. However, these challenges also present unique opportunities; the pressing need for advanced cybersecurity measures, for instance, opens new avenues for investment and catalyzes growth within the cybersecurity sub-sector.

Leveraging Mobile Technology: The Advent of Broadband and 5G

The Dominican Republic is also witnessing significant advancements in mobile technology with widespread deployment of 4G LTE networks and the forthcoming introduction of 5G technologies. These developments are set to revolutionize internet speeds and reliability, significantly enhancing consumer and business connectivity. This competitive market not only improves service quality but also expands coverage, democratizing access to high-quality digital services across the nation.

Collaborative Efforts: Government and Private Sector Innovations

Government policies and private sector initiatives are pivotal in sculpting the ICT landscape. Policies designed to foster competition among telecom operators and attract private investments complement the efforts of telecom companies and ISPs who are leading the charge in integrating emerging technologies such as IoT and AI. These collaborative efforts are crucial in ensuring that all citizens can actively participate in

Key Initiatives and Projects:

1. National Broadband Plan: An ambitious initiative aimed at significantly increasing internet accessibility and ensuring digital equity.
2. Fiberoptic Network Deployment Project: Financed by the IDB, benefiting 23 municipalities and 46 municipal districts in the Southern Region.
3. "Dominicana Conectada" Project: 1,125 free WiFi access points in public transportation systems, schools, and urban areas, with an average of 757,652 monthly connections.
4. Enabling new technologies: Concession to STARLINK Dominican Republic, to provide broadband internet access throughout the national territory, including 60 accounts and terminals for public institutions.
5. "Conectar a los no Conectados" Project: Providing access to 10 remote and hard to reach rural communities, taking advantage of satellite services.
6. "Canasta Digital Social" Project: Subsidy for connectivity and devices for vulnerable households, impacting 4,300 female heads of households in Phase II.
7. "UASD Conectada" Project: Financed by the IDB for broadband infrastructure in university campuses, will impact over 100,000 students.
8. International Public Auction of Radio Spectrum: Assignment of the 3.3GHz and 3.4GHz bands for 5G services.
9. Renegotiation of Concessions: Agreement of new terms and conditions on the concession contracts to guarantee more investments in underserved areas and legal security.
10. Expansion of Cable Television Service Concessions: Including internet access services to existing authorizations that were limited to cable TV.

and benefit from the burgeoning digital economy.

A Connected Future: Socio-Economic Impacts and Smart City Initiatives

The enhancements in digital connectivity are transforming various sectors, including business, education, healthcare, and urban management. Improved connectivity supports economic growth, enables innovative educational practices, facilitates telemedicine, and underpins smart city initiatives aimed at improving urban living through technology.

Leadership by Indotel

To accelerate the implementation of 5th generation networks, Indotel who was recognized by ITU as a 5th generation regulator, is implementing equitable and cost-effective allocation of new radio spectrum and is updating the National Frequency Allocation Plan and the General Regulations for the Use of the Radio Spectrum in the Dominican Republic, following the outcomes of WRC-23. In addition, the regulator is reviewing the National Spectrum Management Policy and a 5-year master plan for its use.

Indotel is actively supporting the national Digital Republic program, a multi-pronged initiative focusing on Education, Access, Productivity and Employment, Digital Government, Cybersecurity, and Social Inclusion. The main goal of the Digital Republic is to extend digitalization to all productive and governmental areas, reaching all corners of the country, and breaking the digital divide that threatens to separate and isolate the Republic's citizens as well as those in the Caribbean region.

The Digital Republic program has deployed an extensive fiber-optic network and Wi-Fi points throughout the digital territory, connecting schools, students, and teachers to the unlimited learning opportunities that the digital world delivers; opening dozens of public services to citizens and a host of other opportunities. Due to this program, entrepreneurs and small, medium, as well as micro-sized enterprises, can participate in e-commerce and play an active role in expanding the Republic's knowledge-based economy. Through Digital Republic, we witness the value attached to connectivity as an instrument for development and the fight against poverty in the region.

> *INDOTEL was awarded "Regulator of the Year" at the Conecta Latam Awards 2023 for its exceptional contributions to the telecommunications sector in the Dominican Republic. Julissa Cruz, INDOTEL's executive director, was named "Connectivity Ambassador" by the Inter-American Dialogue.*

Additional Leadership Areas by Indotel

International Relations: Formalization of agreements with 20 countries and international organizations such as the UIT, CITEL, and RedCLARA, enhancing the Dominican Republic's influence in global ICT discussions.

Recognition and Awards: INDOTEL was awarded "Regulator of the Year" at the Conecta Latam Awards 2023 for its exceptional contributions to the telecommunications sector in the Dominican Republic. Julissa Cruz, INDOTEL's executive director, was named "Connectivity Ambassador" by the Inter-American Dialogue.

A Digital Renaissance

As the Dominican Republic strides forward on its digital journey, its commitment to creating a sustainable and inclusive digital future is evident. Through strategic investments and robust partnerships, the nation is not just enhancing its own digital capabilities but is also setting a precedent for digital transformation in the Caribbean and beyond. The ongoing developments in the ICT sector promise not only enhanced connectivity but also a foundation for sustainable growth, making the Dominican Republic a beacon of digital innovation in the region.

About the Author:

Julissa Cruz Abreu has directed significant projects, such as the National Broadband Plan of the Dominican Republic, the Tender for the Radioelectric Spectrum for the deployment of 5G, and the coordination of the Connectivity and Access to the 2030 Digital Agenda. She is an Ambassador of Connectivity for Education by the Inter-American Dialogue organization, and was nominated as a finalist for the CONECTA LATAM AWARDS 2023 award in the "Most Connected Woman of the Year" category.

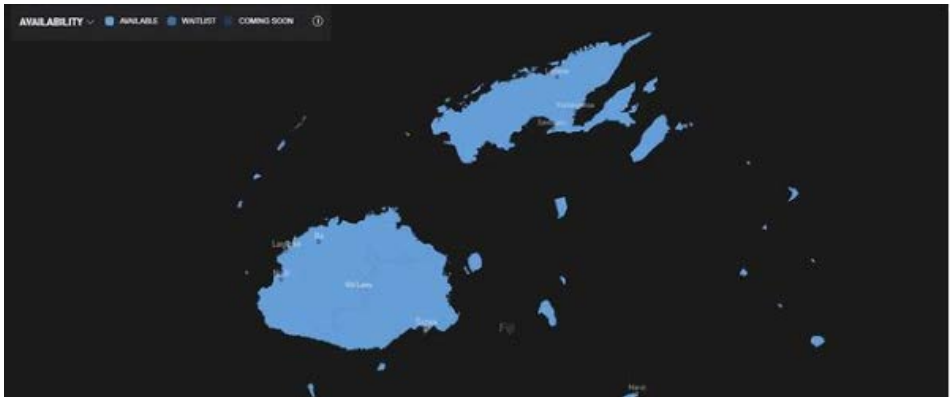
SATELLITE NEWS

Viasat and Azercosmos Expanding Satellite Services in Azerbaijan

Viasat and Azercosmos are partnering to bring L-band satellite services to Azerbaijan. Under the proposed arrangement, Azercosmos and Viasat will provide connectivity for a range of industrial applications to help organizations operate more efficiently, sustainably, or safely - even in the most remote locations. This includes powering applications like tracking and telemetry for advanced transport systems, pipeline monitoring and control for energy companies, real-time control for utilities, and environmental or safety monitoring for mining and agriculture. Azercosmos provides a range of telecommunications, remote sensing, surveying, and ground station communications services in both public and private sectors. The collaboration with Viasat will significantly expand its available connectivity offering, meaning it can provide more services for existing and new customers alongside connectivity from its existing satellite fleet. Fuad Aslanov, Vice-chairman of Azercosmos, noted: "The agile response in the satellite service market is critically important for us, and we aim to expand our reliable service to consumers and businesses globally."

Starlink is Now Live Across Fiji

The SpaceX satcoms service Starlink is now live across the more than 300 islands in the Republic of Fiji, marking, the company says, the 99th country, territory or market around the world where Starlink's high-speed internet service is available. Starlink was granted a license to provide internet services in Fiji, a country of some 936,375 people, in mid-November 2023. The Fijian Competition and Consumer Commission (FCCC) welcomed the news that the LEO satellite operator had acquired licenses to operate in Fiji, saying it will boost competition and make the digital economy more inclusive. Indeed, Deputy Prime Minister and Minister for Trade, Co-operatives, SMEs, and Communications, Manoa Kamikamica has been widely quoted as saying that the licensing of Starlink for commercial use is a 'game-changer' for Fiji, strengthening the country's resilience in providing connectivity during natural disasters The arrival of Starlink also supports the Fiji government's efforts to connect the unconnected population in maritime communities without significant upfront capital costs incurred. Starlink says the services align with the Fijian Competition and Consumer Commission's goal of implementing a competitive, fair and dynamic market for internet services in Fiji. This news underlines the relevance of satcoms to archipelagos where regular fixed connectivity can be an issue. We reported earlier Starlink's arrival in Indonesia, a country of over of over 17,000 islands and 277 million inhabitants. Starlink arrived in the Philippines, which is made up of more than 7,600 islands, many of which are isolated and with mountainous terrain, in 2022.



Sateliot to Launch Four Satellites in 5G IoT Program

Looking to deploy what it says is the first low-Earth orbit (LEO) satellite constellation with 5G standards for internet of things (IoT) and 100% global coverage, satellite operator Sateliot is to enter into the commercial phase of its 5G-IoT constellation with the launch of four satellites from SpaceX's Transporter-11 mission. The launch is scheduled for July, and the satellites will fly aboard a Falcon 9 rocket from Vandenberg Air Force Base in California. Each of the four CubeSat 6U satellites that Sateliot will launch in July 2024 represents an investment of €500m. They measure 20 x 10 x 35 centimeters and weigh 10 kilograms. They will orbit at about 600 kilometers altitude and have a lifespan of over five years. The technology, which is designed to provide connectivity to more than eight million devices already subscribed to the service, is, assured Sateliot, "democratic and accessible", open to various use cases for small and medium-sized enterprises, public administrations, and large companies. Sateliot stressed that the fundamental part of these satellites lies in their interior, supported by their own innovative technology, tested and validated by the European Space Agency (ESA) and mobile communications standards body 3GPP. In 2023, Sateliot announced that it had worked through the Telefónica Tech and Telefónica Global Solutions (TGS) divisions to extend the reach of Telefónica's 5G network, providing an end-to-end satellite coverage extension to the operator's cellular network through standard GSMA roaming. Commenting on the launch, Jaume Sanpera, CEO and co-founder of Sateliot, said: "With this launch, the company enters a new dimension that will allow Spain to lead IoT connectivity on a global scale." Founded in 2018, Sateliot claims to offer the first LEO satellite constellation based on the 5G standard, allowing unmodified commercial cellular NB-IoT non-terrestrial networks (NTN) devices to connect from space. It claimed it was the first time in history that terrestrial cellular telecommunications merged with satellite connectivity. The company's business plan projects revenues of €500m in 2027 and €1bn in 2030, with an EBITDA margin of over 60%. With plans to deploy more satellites by 2025, it said it has already secured €200m in recurring revenue contracts from over 400 clients in 50 countries worldwide. To achieve its aims, the company is engaged in talks with national and international space industry players and investors to close its €30m Series B funding round.

Zimbabwe and Namibia Announce Satcoms Initiatives

More space-related announcements have recently been made, this time by Zimbabwe and Namibia, underlining the continuing growth of satellite communications initiatives in sub-Saharan Africa. Zimbabwe is set to launch its second satellite, ZimSat-2, in November after technical issues – the primary payload was not ready – delayed the original 26 May launch. ZimSat-2 will feature advanced sensors and imaging devices, supporting applications such as mineral exploration, environmental hazard monitoring, and management of droughts and human settlements. Pre-launch tests for the new satellite are reportedly complete, and the satellite is now awaiting the appropriate launch window in November. Zimbabwe aims to introduce three additional earth observation satellites in the coming years, building on the capabilities of its first satellite, ZimSat-1, launched in November 2022. According to the Bulawayo24 online news service, ZimSat-1 currently aids in monitoring drought conditions, mine mapping, and other data-driven activities from the Mazowe Ground Station. Also in Southern Africa, the ITWeb Africa news service reports that private equity fund manager Eos Capital, which manages the Namibia Infrastructure Development and Investment Fund (NIDIF), has been given permission to start the Namibia Space Port project. Described by South Africa's Engineering News as a satellite ground segment complex, the Namibia Space Port project is led by Q-KON Namibia, a Communications Regulatory Authority of Namibia (CRAN)-licensed satellite service provider, which is reportedly poised to become a major player in the rapidly expanding low earth orbit (LEO) business as the Namibia Space Port develops. More specifics about how this project will benefit Namibia are not easy to find, but Engineering News says the new facility will focus mainly on ground gateway terminal hosting, Earth observation (EO) downlink services, and tracking, telemetry and control (TT&C). Dr Dawie de Wet, Group CEO of Q-KON, says: "We are honored to lead this transformative initiative that will not only enhance Namibia's technological prowess but will also contribute to the growth of the LEO industry in Sub-Saharan Africa."

NTT Data Launches LEO Satellite Solutions Across Africa

NTT Data Middle East and Africa announced it has launched LEO satellite-based connectivity solutions across the African continent, and has already signed on nine customers from sectors such as retail, banking, mining, and logistics. NTT Data. the IT infrastructure and services company formerly known as Dimension Data until last month – is offering a vertical solution that combines an integrated geostationary and low-orbit satellite solution with established fibre and wireless networks, which it says provides enhanced performance for multiple use-cases including access to latency-sensitive applications as well as real-time services such as videoconferencing. Greg Hatfield, VP of Infrastructure Solutions at NTT Data, acknowledged that the company is banking on the fact that satellite connectivity options have seen a surge in demand across the continent following a rash of international subsea cable breaks this year. With the satellite solutions field consequently becoming increasingly competitive, NTT Data's strategy is to take a vertical approach and focus on deployments for key clients in selected industries. "Our approach is to provide LEO-based connectivity solutions using industry specific full-stack architecture. This enables business transformation for our clients, as opposed to simply connecting their locations," Hatfield said in a statement. "The enhanced attributes of LEO only reach their full potential when used in an integrated infrastructure and application ecosystem tailored to the requirements of the organization." This also enables NTT Data to tailor its satellite solutions for customers, he added. "As specialist aggregators and integrators we can go all the way up their stack to integrate LEO-based connectivity solutions into any other element of their infrastructure."

Chinese Startup Netwing Launches User-Friendly Satellite Internet Device for Remote Connectivity

Inhabitants and visitors of China's vast remote regions, from high-altitude plateaus to arid deserts, have been facing significant challenges in staying connected due to the limited coverage of 4G signals – which is currently at just 30% across the country's expansive western territories. But Beijing-based startup Netwing is making strides to address this tech void by releasing a consumer-grade satellite internet device, aiming to serve a market that's been largely untapped until now. Netwing's innovation lies in condensing basebands, power amplifiers, and antennas into a compact panel antenna that weighs a mere 4.5 kilograms and is sized akin to a speaker box. This equipment significantly reduces the cost, offering an alternative for about a tenth of the cost of traditional satellite antenna systems. With the intention to market this product towards the general public, Netwing has claimed the title of launching China's first C-end market-oriented satellite-based internet device. When pondering over civilian satellite internet services, global behemoths like Starlink might come to mind. While Netwing and Starlink's terminal products share similarities in terms of functionality, Netwing is still in its infancy, especially when compared to Starlink's impressive 3 million users and annual revenues surpassing $6 billion. Striving to replicate similar success domestically, Netwing has taken its first steps in a market that's virtually a clean slate in China. The satellite communication industry has traditionally been characteristically monopolistic, with high entry barriers both technically and financially, and aimed at serving government and military uses. Netwing, however, leveraging advancements such as high-throughput satellites which provide considerably higher capacity than traditional satellites, is determined to make an impact in the commercial sector. With their development, users like tourists and field workers can potentially gain access to efficient and portable internet service, enhancing their ability to stay connected even in the most isolated of locations.

SpaceX and T-Mobile's Starlink-Based Satellite Cell Coverage Moves One Step Closer

Starlink, SpaceX's network of satellites in low Earth orbit, has ambitious plans with T-Mobile to bring full cell service to less-populated areas where customers have previously struggled to connect. SpaceX demonstrated this technology on Tuesday with a video call. In the demo, two SpaceX employees test the technology with a video call using the video-calling feature of X, formerly Twitter. It's the first such call that uses Starlink's Direct to Cell satellite service, a project that SpaceX has been working with T-Mobile to build since 2022. While no official launch date has been announced for the service, SpaceX said in a tweet that the company is "excited to go live with T-Mobile later this year." Representatives for SpaceX and T-Mobile didn't respond immediately to requests for comment. The demo was run on unmodified smartphones. That means consumers likely won't need specialized tools or a new phone to use the service when it eventually rolls out. This fulfills T-Mobile's original promise that "the vast majority of smartphones already on T-Mobile's network will be compatible." For the time being, SpaceX has been using T-Mobile's PCG G Block bands to perform its testing as per the company's FCC filings. In January, SpaceX launched the first six phone-connecting satellites into orbit. T-Mobile said at the time that testing for the network would begin shortly thereafter. The telecom company originally partnered with SpaceX in order to cover dead zones in its coverage. In some areas -- particularly in the rural parts of the US -- putting in cell service is expensive, difficult or both. With satellites, T-Mobile hopes to finish covering all the remaining half-million square miles of the nation that few cell services can reach. T-Mobile isn't the only one working on this problem. AT&T has partnered with AST SpaceMobile to accomplish the same task while Verizon joined up with Amazon's Project Kuiper. Verizon also has satellites in orbit that are in active testing with its network. Chipmaker Qualcomm also attempted such a service, but it ended its deal with Iridium in November 2023. So far, T-Mobile and SpaceX are the only pair with an active demo that can be viewed online. Some phone users even have been seeing the option pop up on Pixel phones running the Android 15 beta. It puts the two tech giants ahead in the race to cover dead zones in the US.

Starlink Goes Live in Indonesia, Targets Rural Health and Education

SpaceX's LEO satellite operator Starlink officially launched its service in Indonesia on Sunday, which among other things will be used to bolster healthcare and education services in remote areas under a new agreement. According to media reports, SpaceX CEO Elon Musk was on hand for the launch ceremony in Bali along with various government ministers. At the ceremony, Musk signed an agreement between SpaceX and the Indonesian government to use Starlink to enhance connectivity for the healthcare and education sectors, although no details were provided. The launch ceremony took place at a community health clinic in Densapar. Musk also conducted a speed test of the Starlink service with health workers in remote regions. "This can make it really a lifesaver for remote medical clinics, and I think it could be a possibility for education as well," Musk was quoted as saying by the Associated press. According to Health Minister Budi Gunadi Sadikin, who also attended the launch, around 2,700 of the countries over 10,000 clinics have no internet access. "The internet can open up better access to health services as communication between regions is said to be easier, so that reporting from health service facilities can be done in real time or up to date," he told the AP. Starlink's arrival in Indonesia has been highly anticipated for some time, not least because its satellite broadband service is seen as a fast ticket to connect underserved and unserved remote communities across the archipelago. Starlink officially applied for the relevant licenses to operate in Indonesia in April 2024, and received official approval earlier this month. In between, Starlink signed an MoU with the Indonesian Internet Service Providers Association (APJII) to provide internet access in the underdeveloped, frontmost and outermost regions of the country.

USTDA, CdNet to Boost Bangladesh's 5G Internet with Bagha-1

The US Trade and Development Agency (USTDA) has awarded a feasibility study grant to Bangladeshi telecom company CdNet Communications Ltd (CdNet) for the development of the Bangladesh International Submarine Cable, known as Bagha-1. This initiative aims to expand reliable internet connectivity across Bangladesh. The Bagha-1 subsea cable is expected to significantly increase internet capacity and improve quality for both urban and rural areas. This development promises to enhance secured high-speed internet connectivity throughout the country. Florida-based APTelecom LLC has been selected by CdNet to conduct the feasibility study. This study will play a crucial role in assessing various options and identifying the most strategic path for deploying a trusted subsea cable system in Bangladesh. The agreement for this study was signed by USTDA and CdNet during the sixth Indo-Pacific Business Forum held in Manila. USTDA Director Enoh T Ebong highlighted the agency's broader strategy in the region: "Across the Indo-Pacific, USTDA is building a portfolio of subsea cable projects with partners like CdNet who are committed to expanding their countries' broadband capacity through trusted subsea fiber optic cable systems." CdNet Director Chowdhury Nafeez Sarafat emphasized the potential impact of Bagha-1: "Bagha-1 would help bolster Bangladesh's reliable and trusted connectivity to the world and unlock opportunities for emerging digital services, including 5G services, international data centers, and international hyperscalers." US Ambassador to Bangladesh Peter Haas underscored the importance of the USTDA's study: "USTDA's feasibility study will lay the groundwork for improved internet access and quality for the people of Bangladesh." The Bagha-1 project represents a significant step forward in enhancing Bangladesh's digital infrastructure. With improved internet capacity and quality, the country stands to benefit from advanced digital services and better connectivity on a global scale.

Tonga Government Evaluating Starlink License Application

The government of Tonga is reportedly deliberating whether or not to grant an operator license to SpaceX's LEO satellite operator Starlink, which a number of people in the country are already, albeit not legally. According to Matangi Tonga Online, Prime Minister Siaosi Sovaleni said the government has received Starlink's application and is taking it into consideration. Among other things, Sovaleni said, the government has to evaluate the impact of Starlink on existing network operators. That said, another issue is that some people who live in areas of Tonga with poor or no internet coverage are using Starlink services anyway by purchasing Starlink subscriptions in other countries and using its roaming feature to access the service in Tonga. Sovaleni warned that until Starlink receives a license to operate in Tonga, importing Starlink terminal kits for use in Tonga is illegal, the report said. Tonga's internet services have been criticized for being expensive and slow. According to the Broadband Speedchecker website, the average downlink speed in Tonga is 3.5 Mbps, with Digicel Tonga at the top range with 8.59 Mbps. Datareportal says that Tonga's internet penetration rate was just over 71% at the start of 2023. The island's vulnerability to internet disruptions was graphically illustrated in January 2022, when the eruption of the Hunga Tonga-Hunga Ha'apai volcano damaged the only subsea fibre cable connecting Tonga to the global internet. Ironically, Starlink was one of several telecoms companies who came to Tonga's rescue after the eruption, setting up a gateway station in Fiji and sending Starlink terminals to Tonga.

SpaceX Launches 23 More Starlink Internet Satellites into Space

US private space company SpaceX launched 23 more Starlink satellites into orbit. The satellites were launched aboard a Falcon 9 rocket from NASA's Kennedy Space Center in the US state of Florida, according to SpaceX. Falcon 9's first stage landed on the "Just Read the Instructions" droneship, which was stationed in the Atlantic Ocean, according to the company. SpaceX later confirmed the deployment of the 23 satellites. Starlink will deliver high-speed broadband internet to locations where access has been unreliable, expensive, or completely unavailable, according to SpaceX.

Network Makes History with First Ever Bluetooth Connection to Satellite

Hubble Network, a Seattle-based startup has accomplished what was once deemed impossible establishing a Bluetooth connection directly to a satellite. This historic milestone marks a significant leap forward in the realm of connectivity with far-reaching implications across various industries. Founded in 2021 by industry veterans Alex Haro, Ben Wild and John Kim, Hubble Network has been at the forefront of innovation in satellite technology. With the successful launch of its first two satellites aboard SpaceX's Transporter-10 mission in March, the company has demonstrated its ability to push the boundaries of what's achievable in space. The reception of signals from onboard 3.5mm Bluetooth chips from over 600 kilometers away validates the effectiveness of Hubble Network's approach. This breakthrough opens doors to connect millions of devices worldwide addressing the limitations faced by traditional IoT devices in terms of power consumption, operational costs and global connectivity. Alex Haro, co-founder of Hubble Network expressed astonishment at the initial concept but recognized the significant demand for such technology. By leveraging innovative software and patented phased array antennas, the company has overcome these challenges enabling off-the-shelf Bluetooth chips to communicate over extended ranges with minimal power consumption. The phased array antenna acting as a magnifying glass facilitates seamless communication between Bluetooth-enabled devices and satellites. This technology has vast implications across numerous sectors including logistics, agriculture, healthcare and beyond. With plans to expand its satellite constellation, Hubble Network is poised to provide continuous coverage for a wide range of use cases. From remote asset monitoring to soil temperature monitoring and even fall detection for the elderly, the potential applications are limitless. As the company prepares to launch additional satellites in the coming months, the vision of global device connectivity is rapidly becoming a reality. The successful establishment of a Bluetooth connection with satellites heralds a new era of enhanced efficiency and productivity with Hubble Network leading the charge in revolutionizing connectivity on a global scale. As we look towards the future, the possibilities presented by Hubble Network's achievements are both awe-inspiring and transformative. With each milestone, the potential for innovation and progress in the realm of connectivity grows exponentially paving the way for a more interconnected world.

Kacific Launches High-Speed Satellite Internet in Soru, Karnali

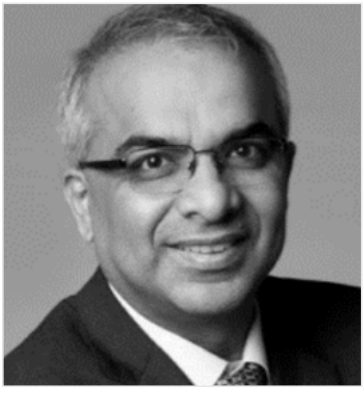
Kacific Broadband Satellites Group has launched its satellite internet service in Soru Rural Municipality of Karnali. Following this next-generation leap in connectivity, the subscribers in the area now have access to high-speed broadband service without any need for cable. In the first sign of the perk of it, Kacific says that its satellite service has helped the government bring its operations online. "We were able to facilitate the shift of all government applications online, ensuring smoother daily office operations- all made possible through the power of fast and reliable satellite internet connectivity," Kacific said in a statement. Further, the company adds that it's playing a part in bridging the digital divide which is crucial for countries like Nepal that's full of uneven terrain. The complex landscape makes Nepal's telcos and internet service providers (ISPs) launch traditional broadband systems. However, satellite broadband providers such as Kacific can do that wirelessly. Kacific entered Nepal officially with its local partner Space Link in August 2022 aiming to offer reliable connectivity in rural areas. The company collaborating with local partners seeks to empower connectivity for government agencies and enterprises in rural and remote areas in Nepal. For its satellite broadband service, it's got a Ka-band spectrum (19.7-21.2 GHz Downlink, paired with 29.5-31 GHz Uplink)) approval from the Nepal Telecommunications Authority (NTA). As per its sites, Kacific currently operates in 25 countries serving over 600 million people with 56 satellite spot beams.

Two New Satellites Join the Galileo Constellation

The European Galileo navigation system has two more satellites in orbit following their launch on a SpaceX Falcon 9 in the early morning of Sunday, 28 April, at 01:34 BST/02:34 CEST. With 30 satellites now in orbit, Galileo is expanding its constellation, increasing the reliability, robustness and, ultimately, the precision, benefiting billions of users worldwide. Already the most precise satellite navigation system in the world and the largest European constellation of satellites, Galileo has been operational since 2016, when Initial Services were declared. Galileo is making a difference across the fields of rail, maritime, agriculture, financial timing services and rescue operations. Many strategic sectors depend on it: already 10% of the EU's yearly GDP relies on satellite navigation and this is set to increase. From finding our way, to supporting Search and Rescue activities and providing ultra-precise timestamps for all kinds of institutional and commercial applications, Galileo is integral to our everyday lives. Since the conception of Galileo, 38 Galileo satellites have been developed and tested by ESA and European industry for the EU's Galileo program. Of these, four In-Orbit-Validation and 26 Full Operation Capability satellites have been placed in orbit with 12 launches. This launch is taking place only a few days after the new Public Regulated Service (PRS) signals started to be broadcasted. This encrypted navigation service is specifically designed for authorized governmental users and sensitive applications, contributing to increase Europe's autonomy and resilience in the critical domain of satellite navigation. The eight remaining Galileo First Generation satellites are ready to be launched soon, after which a Second Generation (G2) of satellites will start joining the constellation, expected in 2026 with the Ariane 6 launcher. ESA, as Galileo's design authority and system development prime, is working with European industry to develop the G2 satellites that will revolutionize the fleet with enhanced capabilities. G2 satellites will use electric propulsion and host a more powerful navigation antenna, more and even better atomic clocks and fully digital payloads.

ARTICLE

World's Digital Horizon: Charting the Future of Technology, Policy, and Business



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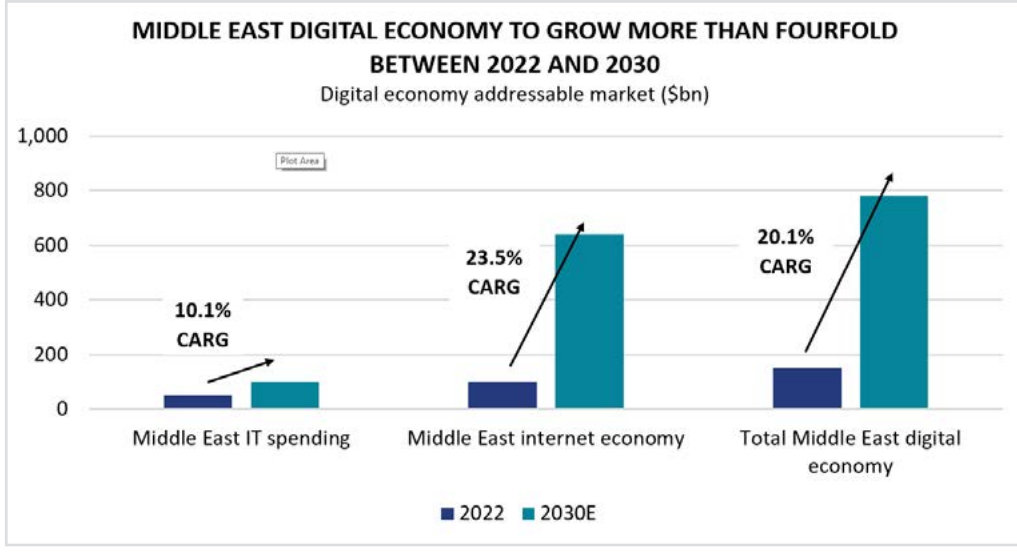
As we enter the digital era, the global landscape of technology and telecommunications is undergoing a seismic shift. Driven by relentless innovation and a thirst for progress, this sector is revolutionizing how we live, work, and connect. For instance, Middle East's digital economy is expected to hit $780bn by 2030 and outpace global growth.

Acknowledging the crucial role of telecommunications infrastructure, Smart countries position themselves as strategic enablers for digital transformation. With their resilient and reliable world-class connectivity infrastructure, these countries are at the forefront of digital technologies. By investing in advanced connectivity infrastructure, security,



Source: The National News magazine, World Bank, Gartner, Bloomberg Intelligence and UBS

This article explores how Smart countries are flourishing and strategically employ strong ecosystems for collaboration, becoming driving forces for digital transformation.

A commitment to fostering collaboration between the government, businesses, and residents lies at the heart of their success. This collaborative framework serves as the foundation for striving digital transformation, setting the stage for innovative solutions that benefit the entire society.

and sustainability, Smart countries will provide its population and businesses with the tools and capabilities necessary to compete.

Their commitment to innovation sustains the growth of innovative industries, such as e-commerce, e-health, e-education, and other high-impact sectors. By digitalizing the existing economic base and building or attracting new digital and technology players, these countries will create an innovative and borderless digital economy which will result in significant benefits.

Digital connectivity and emerging technologies are pivotal for future-ready ICT ecosystems. Such environments are driven by digitally skilled talents, progressive regulation, and early adoption of the latest and future technologies, including Artificial Intelligence (AI), Blockchain, and Quantum Computing.

To efficiently steer, monitor, and track the overall execution of the strategic aspirations and targets for the connectivity infrastructure, Smart countries will set clear governance guidelines and policies. This ensures that this vision is not only ambitious but also effectively executed to bringing tangible benefits to the population and businesses.

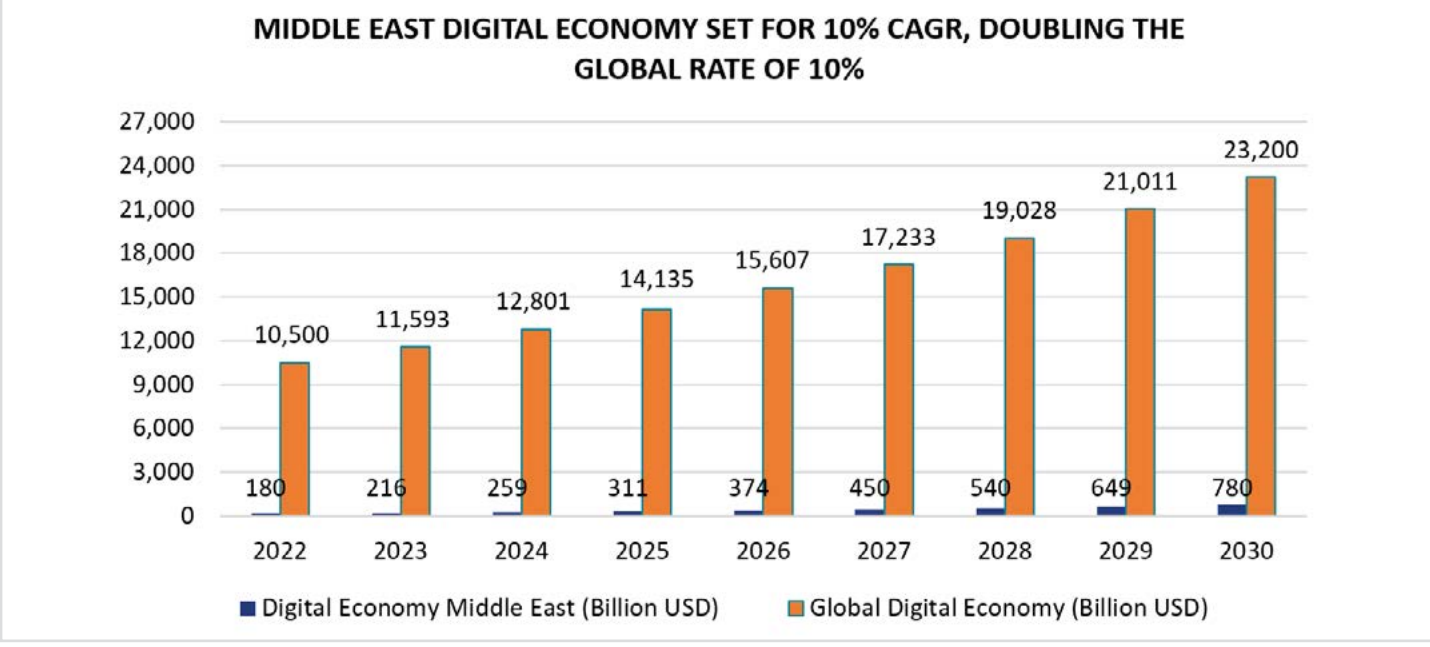
Strategic plans and regulatory framework

Smart countries are set to take on a leading role in the growth of the national digital ecosystem, bolstering attractiveness for international investments, providing the ecosystem for social development, and fostering innovation. The aim of such an ambitious vision is to integrate the advancement of the telecommunications and digital ecosystem, propelling it toward greater growth and prosperity.

The transformation into a gigabit society will offer high-capacity and quality services that will be accessible to the population and businesses independent on their conditions. The establishment of a dedicated Cloud Hub will facilitate independent international connectivity and a collaborative digital economy expansion. These countries should have a plan that emphasizes progressive network resource management, the development of a thriving 5G ecosystem and innovation testbed, and the adoption of robust cybersecurity measures for international data exchange. In addition, theirs plans should include the implementation of a national Artificial Intelligence (AI) policy, a commitment to sustainability with new green data centers, and strategic investments in future technologies like 6G, open data models, and quantum computing to ensure readiness for the evolving ICT landscape.

To support such ambition, Smart countries are putting an effort in developing an optimal regulatory framework that will focus on 5 dimensions:

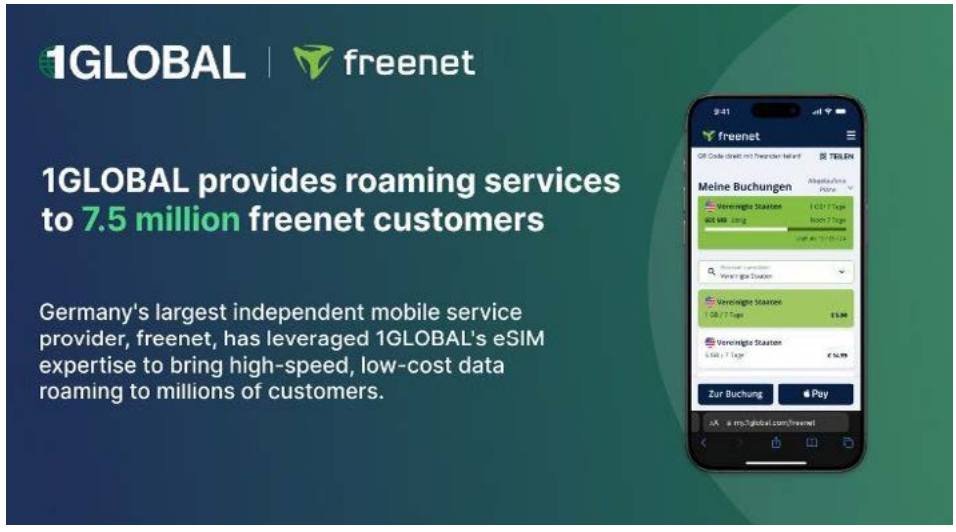
1. A robust domestic and international connectivity should be established to function as the fundamental cornerstone of the nation's rapidly expanding ICT ecosystem, ensuring long-term sustainable growth. These countries acknowledge the importance of sustained investments in its telecommunications infrastructure as seen in Hawaiki Nui network extension project, New Zealand.
2. The convergence of the physical and software layers, fostering digital transformation. Leveraging the widespread 5G network infrastructure for IoT solutions, harnessing the capabilities of cloud computing, and integrating advanced technologies like AI are crucial elements for driving growth and development across industries. This will help in becoming leading players in ICT application development such as Singapore's National AI Program.
3. Attraction of international telecommunications and technology players into the countries similarly to Singapore's integration of international collaborations in technology research.
4. The development of a critical national infrastructure (CNI) sectors based on a secure digital environment, comprising a strong cybersecurity, data protection, and cross-border data flow posture to protect their intellectual property and sensitive data, giving a competitive edge in the global market as seen in Hong Kong as part of its investments in infrastructure for the "Smart Living" national project.
5. The investment in attaining net-zero carbon emissions bolstering a green infrastructure which emphasizes the promotion of sustainable practices within the telecommunications sector, specifically targeting the development and adoption of environmentally-friendly hardware, software, and energy solutions such as Estonia's largest carbon-free data centre in the Baltics.



Source: Swiss Bank UBS

WHOLESALE NEWS

Germany's freenet Partners with 1GLOBAL eSIM Infrastructure to Launch Roaming Service



Germany's largest independent mobile service provider, freenet, has partnered with the global telecommunications network 1GLOBAL to power their new offering, freenet Travel. This new product creates immediate added value for freenet customers who plan on visiting other countries. Whether travelling for business or leisure, calculating roaming costs and data usage abroad can often be complex. 1GLOBAL eSIMs offer millions of freenet customers a crucial advantage, enabling seamless mobile internet usage in countries outside the EU while avoiding high roaming charges. All freenet customers with eSIM-compatible devices now have access to the service. To install the eSIM on their phone, they simply scan a QR code and follow the onscreen prompts. Once downloaded, a 1GLOBAL eSIM can be used as many times as needed in any of the countries supported by the secure high-speed network. Users can choose from a variety of tariffs and instantly book a data plan for their desired destination, even if they have no internet connection. They will also benefit from 1GLOBAL's high-speed 4G/5G network. 1GLOBAL has developed a complete eSIM ecosystem including Remote SIM Provisioning (RSP) and Entitlement Servers, ensuring the highest quality throughout the eSIM deployment lifecycle. Their fully integrable API can be customized and adapted to deliver an outstanding client experience across a wide range of telco products. Hakan Koç, founder and CEO of 1GLOBAL said, we are among the few providers worldwide capable of supplying and configuring eSIMs ourselves. Through this partnership, millions of freenet customers can now book various data packages for countries outside the EU, allowing them to communicate cost-effectively during their travels. Salome Andrade Pohl, Head of Digital Lifestyle at Freenet said, by using 1GLOBAL eSIM capabilities, we are embracing a future-proof, modern technology. This enables us to further expand our positioning around digital lifestyle offerings.

Veon Sells Stake in Kazakhstan Wholesale JV TNS+ for US$137.5 million

Global digital operator Veon announced that it has struck a deal to sell off its minority stake in Kazakh wholesale telecoms infrastructure services provider TNS+ to focus on its mobile operation, Beeline Kazakhstan. Veon said it will sell its 49% stake in TNS+ to its JV partner, the DAR group of companies, for US$137.5 million, pending the usual regulatory approvals. TNS+ is an international operator providing a wide range of telecoms services in voice, internet access, data transmission, transparent digital channels, IP VPN, IPLS and long-distance communication services to telcos, as well as large corporate clients. Veon's group CEO Kaan Terzioglu said the selloff is the latest move in its global "asset-light" strategy, and will enable Veon to devote more energy to developing Beeline Kazakhstan's digital services, including financial services, digital entertainment and AI-powered software, as well as its second digital brand Izi. "This divestment will allow us to focus more deeply in these areas while optimizing the management of infrastructure services in the capable hands of our partners," he said. Meanwhile, Alidar Utemuratov, group CEO and founder of DAR, said the deal to take over TNS+ represents his company's positive long-term view of the Kazakhstan economy. "During the last 17 years, TNS+ heavily invested in building extensive fibre network of more than 14,000 km throughout Kazakhstan, connecting all major cities and neighboring countries," he said. "We are continuing to invest in growing telecommunications infrastructure assets and digital innovations."

Ofcom Launches 2026 Wholesale Telecoms Review to Power-Up Gigabit Broadband Rollout

Ofcom kicked off its review of the regulations that will apply to the UK wholesale telecoms markets from April 2026 until March 2031.

The review will help make sure the UK's broadband infrastructure is fit for the future. It will aim to set the right environment to promote competition and investment in gigabit-capable broadband, to deliver better services and more choice to consumers. Since the conclusion of our last review in 2021, Openreach and many other companies have ramped up the rollout of their next-generation networks. Gigabit-capable broadband is now available to more than 23.2 million homes (78% of the UK), and more than 17.1 million homes (57%) can access full-fibre broadband. We expect to publish our main consultation on proposals for regulation early next year, with a view to publishing our final decisions in early 2026.

Wholesale Polish Open Fiber Launches Bitstream Access to Its HFC Network

Wholesale fiber network operator Polski Światłowód Otwarty (PŚO) has rolled out bitstream access (BSA) across its HFC network and has confirmed the first retail subscribers are already using the network. While the operator has been offering BSA on its fiber network, which reaches 400,000 households, the HFC BSA service increases the telco's reach but around 3.4 million households. By introducing BSA, it means retail operators can gain access to both networks making the technical integration far easier given they will be able to connect to the HFC network in the same way and with the same equipment as to PŚO's FTTH network. Last July, PŚO – part-owned by Iliad's Polish mobile operator Play – raised PLN5.13bn (US$1.25bn) to upgrade from HFC to fiber-to-the-home (FTTH) and expand its network footprint. The investment program is aiming to increase the current footprint to more than six million – and remain open access. The existing PŚO network covers households in 14 provinces and almost 200 municipalities in Poland. The new BSA service solves the conundrum of what to do on the HFC network in the meantime. Now, retail providers can manage their own IP addresses meaning they can roll out IPTV and VoIP services with PŚO. "We started work on implementing the BSA model on the HFC network almost a year ago," said PŚO CTO Krzysztof Sidor. "The biggest challenge was to develop a way to efficiently serve consumer lines in a standard specific to the HFC network. This meant not only preparing a network solution, but also appropriate IT tools that automate the delivery and maintenance of such services." He added: "The tests we conducted showed that the solution works flawlessly and is of high quality. The operators we cooperate with will soon start using it." PŚO chief commercial officer, Michal Banasiuk said the operator wanted partners to feel no difference between using HFC and FTTH technology. "The launch of BSA simplifies access and service provisioning on the PŚO network. It allows the operator to use one API and the same points of contact for both technologies," he said. "Order placement and processing also look identical, so the operator doesn't even have to wonder whether it is activating the service on the FTTH or HFC network." He added: "At the same

time, we are intensively upgrading our HFC infrastructure to the FTTH standard. At present, few subscribers need Internet access at speeds of up to 5Gbps, but we know this will change in the future. We will be ready for that future." Currently, most of PŚO's HFC network allows subscribers to reach speeds of up to 1Gbps. On the FTTH network, thanks to XGS-PON, PŚO offers access speeds of up to 5Gbps. Last month PŚO added 12,811 new households from 29 localities to its FTTH network. The operator also upgraded its HFC network to FTTH in 48,601 households. By 2028, it plans to expand by two million new households to eventually cover more than six million. Currently, there are already more than 3.8 million households in its footprint.

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ARTICLE

Building a Framework for Neutral Hosting in Middle East and Africa

Daniel Mausoof
Market Head,Technology and Solutions for Mobile Networks
MEA Nokia

Digital connectivity is synonymous with progress. As the United Nations highlights, it is for many people a basic service that connects them to health, welfare, education, financial services and more. It is the neural network behind the digital click of the button that opens the door to economic growth, citizen engagement and social equality. However, in developing countries, only 70% of households have internet compared with 92% in developed countries. There is a need for increased connectivity to ensure that countries lagging on digital within the Middle East and Africa region are pulled forward into the digital age, benefitting from the social and economic advantages it has to offer.

In South Africa, the State IT Agency (SITA) has committed to the development of a national broadband project estimated at around R6 billion. The goal is to increase connectivity while reducing the costs across government, municipalities, and state agencies. As Communications Minister, Mondli Gungubele, stated in April 2024, SITA has committed to 98% core network availability across more than 7,500 connected government sites.

> *One of the core benefits of a neutral hosting model is that it can recover network build costs through the hosting of multiple tenants – it frees up resources that can be redirected towards core business activities while empowering organisations to deliver exceptional services.*

The initiative was set to establish 9,900 Wi-Fi hotspots across 16 districts in 2023 using its SA Connect programme and is running behind the commitment, highlighting the need for increased collaboration with key stakeholders alongside the use of neutral hosting and network sharing to drive momentum. This is already a key role played by Nokia in the Middle East and Africa with its strategic approach to neutral hosting as it narrows the digital gap and is aligned with the company's mobile network strategy of connecting the unconnected.

Closing the digital gap isn't just a technological challenge, it is a social and economic imperative that can launch the region into the future and allow it to fully realise its potential. It is essential that companies share this vision for growth and are committed to providing solutions that bridge the digital divide in Africa, Middle East and beyond.

It is an approach that can have immense impact across the MEA region, especially when in collaboration with leading organisations and government entities. Neutral hosting isn't a new concept as multi-tenant solutions and network sharing have been prevalent in MEA. Today, however, the value of this approach lies in collaboration between agencies like SITA, communication service providers, data centre providers, and other stakeholders as everyone can pool resources and allow for the shared use of assets to impact coverage across rural and urban areas.

It is an intelligent move that benefits all stakeholders while simultaneously addressing the digital divide. Organisations already playing a lead role in this space, particularly with 4G and 5G technologies, can extend their solutions to address digital inequalities and ensure broader and more diverse connectivity. Using neutral hosting, companies can enhance their 5G densification, collaborate with enterprises for industry-specific coverage, and provide connectivity to underserved communities.

However, delivering impact and creating value aren't guaranteed with this approach. There has to be shared commitment across organisations, such as SITA, to develop new business models that unite the ecosystem, foster dialogue and create a shared vision. Within this open framework it is far easier for stakeholders to discuss regulatory frameworks, avoid waste and infrastructure duplication, and adapt network sharing policies where relevant and possible.

One of the core benefits of a neutral hosting model is that it can recover network build costs through the hosting of multiple tenants – it frees up resources that can be redirected towards core business activities while empowering organisations to deliver exceptional services. It also helps to alleviate the challenge of capital scarcity – a challenge in the region – through the more economically viable option of sharing infrastructure, and when accompanied by the surging demand for data, it allows for intelligent network upgrading within economic boundaries.

Closing the digital gap isn't just a technological challenge, it is a social and economic imperative that can launch the region into the future and allow it to fully realise its potential. It is essential that companies share this vision for growth and are committed to providing solutions that bridge the digital divide in Africa, Middle East and beyond. Neutral hosting and shared networks are a viable and intelligent step towards shared growth and development and can play a crucial role in reimagining the potential of the region.

Neutral Hosting Tech Brings Multi-Operator Coverage for Enhanced End-User Experience in KSA

Saudi Arabia's new Red Sea International Airport has become an early example in the region to showcase neutral hosting technology implementation; an initiative that adds to KSA's extensive 5G network coverage, some of the world's first commercial 5G standalone networks, and high-speed fiber networks.

Under the neutral hosting model, ultra-high-speed 5G coverage is delivered through a robust, shared infrastructure, ensuring seamless connectivity for subscribers of all licensed service providers in the country. This means that the services stc, Mobily, Zain, Virgin Mobile, Lebara, Salam Mobile and Red Bull Mobile can all be received inside the airport via a shared system.

The introduction of the new indoor 5G shareable solution by ACES at Red Sea International Airport enhances the overall 5G network performance, empowering mobile network operators to deploy indoor networks quicker, providing their subscribers with high-quality indoor 5G experience, which includes ultra-high speeds.

TECHNOLOGY NEWS

Docomo, Partners Claim HAPS First in 38GHz Band

Japan's NTT Docomo and its high-altitude platform stations (HAPS) partners advanced their goal of delivering 5G service from the stratosphere, trailing a non-terrestrial network using the New Radio (NR) standard in the 38GHz band. The operator, joined by Sky Perfect JSAT, the National Institute of Information and Communications Technology (NICT) and Panasonic, set up an aerial relay backhaul between a small aircraft, flying at altitude of about 4km, and three ground stations, simulating the eventual use of HAPS. In a statement, Docomo noted the demo achieved multiple backhaul lines consisting of aerial relays, a breakthrough the consortium claimed was a world first, adding the trial demonstrated the practical application of 5G feeder links and backhaul lines for HAPS. A Cessna aircraft was equipped with newly developed communication equipment which is expected to be deployed in HAPS. In addition, a lens-type antenna with an auto-tracking function was used as the HAPS ground station. Last December, NICT selected four local companies, including Docomo and Sky Perfect JSAT, to develop direct-to-device mobile services using HAPS.

Dialog Axiata Launches 4G-Powered Vehicle Tracking Service

Sri Lankan telco Dialog Axiata says it has launched a smart tracking solution for vehicle and fleet monitoring, which also uses its 4G network to power various data-based monitoring features. The "Smart Vehicle Tracker" solution includes a device developed by Dialog and The Connection Workshop (a subsidiary of South Asian Technologies) that uses the TeDi fleet management app. The tracker device enables real-time GPS tracking, live updates, and tracking history accessible via Android and iOS smartphones. Dialog claims it's the only such device on the market that is "self-installable, uses 4G technology and is supported by Amazon Alexa." The device also supports alert options such as engine idle, trip start, park alerts, speed alerts and location alerts, which can be pushed within the TeDi app or via SMS. While the vehicle tracking solution is aimed mainly at fleet managers, transport services and corporate clients, Dialog is also offering it to individual vehicle owners and "safety-conscious individuals". One key feature for fleet managers is assigned trips (including automated vehicle gate pass generation), which enables fleet managers to better manage ETAs and route planning. Dialog is also offering customized corporate solutions for the tracker service, including vehicle maintenance,

licensing reminders, automated trip costing, budgeting, and vehicle booking features etc. Users who have a Dialog Fuel Card can also integrate that into the solution to keep tabs on refueling data.

Pakistan Conducts First Symmetric 50G-PON Fiber-Optic Internet Trial

Pakistan Telecommunication Company Ltd (PTCL), in collaboration with Huawei, conducted the country's first trial of Symmetric 50G-PON technology that will help implement next-generation fiber-optic broadband services in Pakistan. Symmetric 50G-PON can provide 50 Gbps connectivity in downstream and upstream transmission simultaneously. It has an edge over the Asymmetric 50 G-PON, which supports 50 Gbps in downstream transmission only. PTCL also inaugurated Asymmetric 50G-PON for the very first time in Pakistan at the beginning of the year. ITU-T recognizes 50 GPON as the next frontier in Passive Optical Network-based broadband technology, which is poised to revolutionize Pakistan's digital landscape. This advancement will support reshaping future demands across industries, enterprises, businesses, campuses, and residential settings with low-latency next-generation services. Key applications and services enabled by this technology include innovations like Holographic Technologies, XR-based Metaverses integration in domestic and professional domains, Smart Manufacturing leveraging 3D Machine Vision,

Remote Surgery and Medical Clinics, and High-Performance Gaming, etc. A notable feature of 50G-PON technology is its seamless coexistence with GPON and XG(S)-PON over the same physical and passive optical network infrastructure. This capability shall empower PTCL to offer significantly enhanced broadband speeds to its customers through on-demand service upgrade requests. Group Chief Technology and Information Officer (GCTIO) at PTCL & Ufone 4G, Jafar Khalid expressed his enthusiasm for this milestone, stating, "PTCL has achieved yet another remarkable milestone with the successful trial of 50G-PON Symmetric technology in Pakistan.

New Zealand's 2degrees Chooses Nokia 5G Core Software Solutions Running on Red Hat OpenShift

New Zealand communication service provider 2degrees has chosen Nokia's 5G core Registers and Shared Data Layer (SDL) software, which will be deployed on Red Hat OpenShift, the industry's leading hybrid cloud application platform powered by Kubernetes, to more cost-effectively manage data with increased reliability and serviceability for 2degrees' approximately 1.6 million subscribers. An existing customer that uses Nokia 5G-based fixed wireless access services, 2degrees offers broadband and mobile services over 3G, 4G and 5G networks covering 98.5% of places New Zealanders live and work, with a nationwide fiber network and modern technology platforms. Red Hat is Nokia's primary reference platform for developing, testing and delivering Nokia's core network applications. By integrating Red Hat OpenShift into the Nokia Cloud Platform, CSPs and enterprises are able to deploy multiple vendors' applications on the same cloud infrastructure, leading to improvements in operations, faster time-to-market, security and scaling with reduced risk. As CSPs explore network modernization opportunities with 5G, including core network, open RAN, multi-access edge computing, private 5G and application modernization, they require greater flexibility and options to deploy applications and services on the cloud of their choice This means integration and interoperability are increasingly critical for optimizing network operations. By capitalizing on the collaboration between Red Hat and Nokia, 2degrees is able to benefit from the latest technology innovation and capabilities provided by an open source platform with Nokia's core network applications for more choice and flexibility than ever before. Nokia is also providing 2degrees with its MantaRay Network Management solution for a consolidated and automated network view for improved network monitoring and management. Nokia leads the world in 5G standalone core, with a total of 107 CSP customers. Nokia 5G Core was recently rated as an industry leader by data and analytics company GlobalData. Nokia Registers is composed of multiple software functions, such as Authentication Server Function, Unified Data Management, and Home Subscriber Server; while SDL, where data is stored, is composed of multiple software functions, like Unified Data Repository and Unstructured Data Storage Function. Stephen Kurzeja, Chief Technology Information Officer at 2degrees, said: "As we continue our journey of network modernization, we are pleased to be taking another meaningful step with Nokia Registers

and SDL, rolled out on Red Hat's OpenShift. That combination provides us the flexibility and reliability that we require to meet the evolving needs of our customers." Honoré LaBourdette, Acting Senior Vice President, Global Telco, and Vice President, Telco, Media and Entertainment Partner Ecosystem at Red Hat, said: "Red Hat is thrilled to see how our efforts with Nokia are empowering customers with enhanced flexibility in their 5G core deployments. We've reached a pivotal point where the network landscape is becoming increasingly distributed, emphasizing the importance of forging unified architectures. With this shift, the cloud platform is a critical element helping seamlessly bridge geographical disparities and hardware variations, propelling us towards a future of unparalleled connectivity and innovation." Henrique Vale, APAC Leader, Cloud and Network Services at Nokia, said: "We are very pleased to support 2degrees as it strengthens its network operations and looks for greater network openness in the 5G era. This reflects what Nokia and Red Hat continue to see as customers move toward more open, less siloed decisions in their infrastructure, strategy and portfolio, and toward open cloud architectures."

NEW AND ENHANCED CONNECTIVITY **FOR THE ENERGY SECTOR**

Eutelsat OneWeb enables fixed and mobile connectivity for oil, gas, and offshore operations. Our GEO and LEO satellite capabilities combine network density and high throughput with high speed and low latency. Our service level agreements and committed information rates support complex production, processing, and distribution technologies as well as crew safety, efficiency, and wellbeing. Connectivity for remote locations everywhere, including offshore platforms, rigs, turbines, and vessels.

- Higher capacity and throughput than other legacy network solutions
- Low latency for new applications and future-ready technology
- Flexible plans that streamline offshore operations with shore-based control centers

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ARTICLE

How Enhanced Connectivity is Fuelling Higher Performance

Hani El Arja
VP, MENA, Central Asia
Eutelsat OneWeb

The rapid expansion of Eutelsat OneWeb's satellite network to deliver more robust, far-reaching connectivity with higher speeds and low latency is transforming the energy industry where our partners and customers operate. Better connectivity has paved the way for new and enhanced digital tools and applications: access to new levels of data is fuelling new solutions across a vast range of activities and requirements.

The combination of two satellite networks in September 2023 converted Eutelsat and OneWeb overnight into Eutelsat Group, the world's first GEO-LEO satellite network operator, whose hybrid capabilities combine network density and high throughput (GEO) with high-speed and low-latency connectivity everywhere (LEO). For oil and gas industry leaders and the wider energy sector, including on and offshore, we now deliver a portfolio of unique, robust, mobile and fixed connectivity services to remote sites and vessels where high-value complex work takes place, often in potentially hazardous conditions. Offshore, these include drilling rigs, production platforms, and wind turbines; or support vessels used for intervention, diving, lifting, anchor handling, logistics, and accommodation. Onshore, in regions that include the Middle East and Mexico, we can deploy hybrid solutions to wherever limited bandwidth, lower speed, or higher latency together restrict instrumentation and overall operational efficiency onsite.

This places Eutelsat OneWeb partners among the first to access the benefits of both GEO and LEO network services in a more connected world; and are able to harness this for their core business activities, meet unique sets of new requirements, and benefit crew safety, efficiency, and wellbeing.

The demand for enhanced connectivity across the oil, gas, and energy market is expected to grow as needs develop in the coming years. Eutelsat OneWeb's unique knowledge, expertise, partnership ethos, and innovation allow us to respond most effectively, with the added opportunity of fine-tuning and additional features on top of our dedicated services wherever the traffic demands.

Oil companies that have widely deployed campus connectivity across production facilities have become leading case studies for a wider digital transformation taking place. Fast, reliable connectivity to the cloud and the corporate network is vital to their infrastructure, allowing real-time data processing and analysis. Better data insights enable oil companies to gain visibility across the entire value chain, breaking down silos between upstream, midstream, and downstream operations. Additionally, better-connected sites can be life-changing for the communities stationed there in terms of welfare and wellbeing.

Eutelsat OneWeb solutions designed to integrate with other transmission systems such as fibre and satellite, mean that technologies such as SD-WAN can maximize availability, prioritize the most critical traffic, and securely segregate traffic according to specified use cases. Our GEO and LEO solutions can be available as primary, backup, and alternate routes, based on the traffic and reliability needs of your field network.

Offshore, Eutelsat OneWeb satellite connectivity is a valuable assist to worker-and-process safety, making critical data readily available to engineers together with the tools to help them identify and mitigate adverse conditions prior to their impact on safety. Enhanced access to data from onshore facilities also minimizes the need for offshore travel and the time taken to research potential issues. Through use of enhanced monitoring such as wearable technology, IoT, detection systems and AI, and machine learning, conditions can be quickly analysed and actions taken, including pre-planned or auto-initiated, to bring conditions into a safe state and provide additional time for other measures and actions that can minimize risk to people and plant.

Eutelsat OneWeb's focus on ubiquity, reliability, speed, capacity, and low latency, also prioritizes the cyber resilience and quality of service that our government partners and their clients require. We offer service level agreements as assurance to oil, gas, and energy customers and the technologies they require for production, processing, and distribution. Our partnership ethos, and focus on secure, resilient connectivity helps industry leaders to manage market volatility, minimize risk, and optimize their operations, whilst improving the exploration and management of existing resources.

The demand for enhanced connectivity across the oil, gas, and energy market is expected to grow as needs develop in the coming years. Eutelsat OneWeb's unique knowledge, expertise, partnership ethos, and innovation allow us to respond most effectively, with the added opportunity of fine-tuning and additional features on top of our dedicated services wherever the traffic demands. Our unique ecosystem of partners, investors, and stakeholders across two business units (Video and Connectivity), that serve government, maritime, enterprise, and aviation clients underscores our mission – to be the most trusted partner for global satellite connectivity. What our partners deliver to their end customers informs our own portfolio of services as we collaborate and grow together. Connecting your world changes everything.

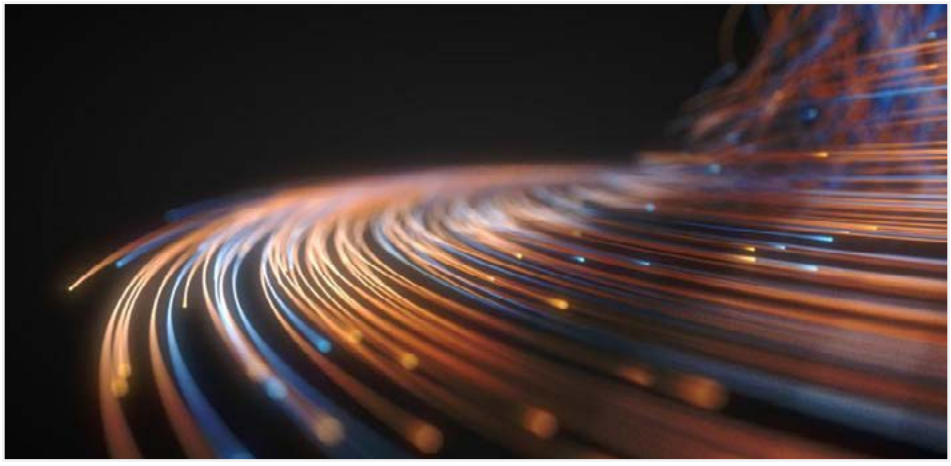
REGULATORY NEWS

TRA Launches Project to Measure and Ensure Quality of Fixed Broadband Services in Oman

The Telecommunications Regulatory Authority (TRA) has launched an initiative to measure and ensure the quality of fixed broadband services (home Internet) for subscribers in Oman. This comprehensive system will evaluate fixed broadband services by measuring various indicators and comparing them with the packages advertised by service providers. A specialized device will be provided to subscribers for free, enabling them to assess different packages. The device, connected to the user's home network, will accurately verify the service level provided by companies over a specific period. It will measure indicators such as download and upload speeds, network response time, network outages, and other relevant metrics. The initiative aims to protect user interests, ensure transparency and consumer satisfaction, and enhance competition based on service quality. Subscribers can request the device through TRA's website, email, call centre, and WhatsApp service.

EU Passes Gigabit Infrastructure Act

The act replaces the broadband cost-reducing directive passed in 2014. The European Council has passed the Gigabit Infrastructure Act (GIA), which aims to simplify and accelerate the roll out of high speed networks like fiber and 5G to meet Europe's connectivity objectives. The GIA was first proposed by the European Commission in February 2023, with the legislation aimed at reducing the costs of deploying gigabit-capable networks and simplifying the rollout process. It is part of the EU's wider goal of deploying gigabit-capable infrastructure across the EU by 2030, in line with the EU's Digital Decade program. By this date, the EU wants all European households to be covered by a gigabit network, and all populated areas covered by 5G networks. It is hoped that by unifying the network deployment regulations across EU member states, the GIA will promote economies of scale for both operators and businesses. But while the GIA should allow for faster network rollouts (at least, once fully enforced by member states in 18 months' time), the decision is not without controversy. In February this year, industry groups representing European operators (ETNO, ECTA, the GSMA, and GigaEurope) released a joint statement warning that the act would damage both the companies and the wider sector due to greater regulatory pressures. The statement read that the act is a "a measure that penalizes telecoms operators, without producing any real benefit in terms of administrative simplification." The new regulation will be published in the EU's Official Journal in the next few days, and will enter into force three days after that. The law will be implemented in around 18 months.



Regulators Brand Spectrum Sharing Key to 6G

Authorities covering markets across the globe outlined their expectations and challenges in deploying the next generation of mobile network technology, with the ability to share spectrum with incumbent services cited as a key requirement. In a series of sessions featuring regulatory bodies from the US, UK, Japan, India, Bharain and the European Union, levels of ambition varied for 6G, though the technology being a network of networks incorporating space-based technology and needing to be environmentally sound were a constant theme. Among the more tempered assessments of the shape of the 6G era, representatives from the UK and US cited a requirement to share spectrum bands with existing services. David Willis, group director, spectrum, at UK regulator Ofcom, said "we're already seeing a greater diversity in demand for spectrum", highlighting a requirement for "sharing by design" moving forward. He added frequencies earmarked for 6G "are already used by some incumbent services, including defence that cannot be moved. It's clear we cannot expect these bands to be fully cleared and exclusively [or almost exclusively] licensed as has happened in previous Gs". The requirement for sharing spectrum with critical services was also raised by Charles Cooper, associate administrator at US authority NTIA's office of spectrum management. "Spectrum fuels national security, aviation, climate monitoring, scientific use and radio astronomy, demanding a balanced approach", he said, adding the US is also supporting commercialization of open radio architecture to this end. This included "work on software defined radio spectrum sensing technology that protects incumbent users, such as government operations, while promoting safe and efficient use of shared spectrum". Levels of expectation for 6G varied across the regulators, though all were broadly positive on its potential, especially for non-consumer applications and each talked-up their nation's progresses. Chair of the Telecom Regulatory Authority of India (TRAI) Anil Kumar outlined his hopes for the transformation of economies and delivering universal service in a sustainable way, with plans for India to be at the forefront of this era. On a more cautionary note, Yoko Nakata, deputy director of the Global Strategy Division of Japan's Ministry of Internal Affairs and Communications, said although her country was working on strategies for the next generation, the full value of 5G was yet to be realized. "We haven't found the killer app unique to 5G yet and we are hoping to find one with the rollout of the standalone system." "But we believe there will be no 6G without the success of 5G so it's really important that we find some applications accepted by everyone in society". The requirement to build on previous generations, be realistic and ensure 6G is an evolutionary technology was raised by Philip Marnick, general director of Telecommunications Regulatory Authority for the Kingdom of Bahrain. He noted a need for a change of mindset from previous generations, for example: "We need to ask ourselves, do we need a new air interface, if we do, when do we need it?" European Union body BEREC's vice chair Konstantinos Masselos stated the argument for the necessity of 5G to improve broadband speeds was questionable, with this even less likely to be the case for 6G. "In my opinion 6G will not be about speed, it will be about services and we will see a change from speed-focused networks to service-focused networks," he added, citing applications requiring "real time" guaranteed performance, for example autonomous driving or smart city applications. With the commercial launch of 6G still more than half a decade away, these debates are sure to continue over the coming years, though the number of nations represented at this relatively early stage shows there is a global push to ensure they are at the forefront of the coming era.

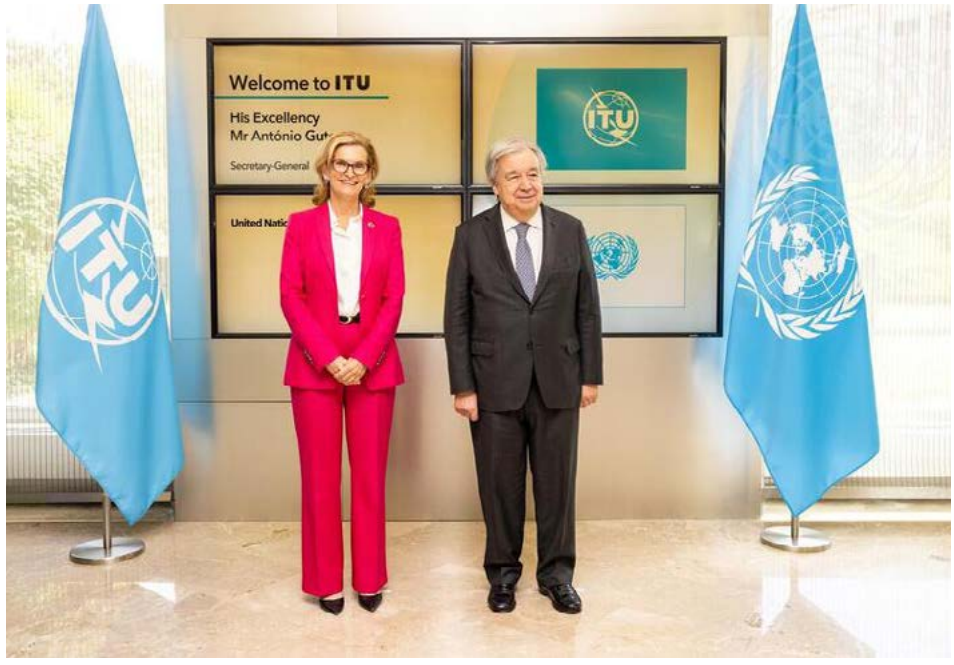
ANCOM Celebrates Memorandum of Collaboration with UAE's TDRA

The National Authority for Administration and Regulation in Communications (ANCOM) of Portugal has recently signed a memorandum of collaboration with its counterpart in the United Arab Emirates, the Regulatory Authority for Telecommunications and Digital Governance from the United Arab Emirates (TDRA), regarding the facilitation of cooperation and the exchange of information in the field of electronic communications. ANCOM highlighted that the memorandum of collaboration establishes the necessary framework of cooperation and exchange of experience in the field of electronic communications, and satellite regulatory policy, including satellite frequency monitoring, radio frequency spectrum management, and monitoring, as well as other aspects of electronic communications regulation.

Broadband Commission Assesses AI and the Digital Divides

Artificial intelligence (AI) is poised to help bring online the 2.6 billion people still not connected to the Internet, according to The State of Broadband 2024 from the Broadband Commission for Sustainable Development. The Broadband Commission released the first part of the report at its virtual Spring Meeting, which brought together government leaders and heads of international organizations alongside representatives of private sector companies, civil society and academia. The report reviews how AI solutions can accelerate progress on broadband advocacy targets aimed at getting everyone online and achieving the UN Sustainable Development Goals (SDGs). “Emerging technology trends such as artificial intelligence are anticipated to add trillions to the global digital economy," said Rwanda's Minister of Information Communication Technology and Innovation Paula Ingabire. “The ability to harness artificial intelligence to revolutionize access to broadband and other services as well as boost productivity for different sectors will require massive investments in the building blocks including power, connectivity and computing resources, particularly in emerging economies." According to The State of Broadband 2024: Leveraging AI for Universal Connectivity, emerging technologies stand to revolutionize the way decisions are taken and services are provided. The report highlights how AI is already reshaping the delivery of traditional services for human well-being in sectors such as government, education, healthcare and finance. "The use of Artificial Intelligence is not new, but recent advancements in data, computing power, and algorithms are driving innovative services," said Carlos Slim, Founder and President of Grupo Carso, Co-Chair of the Commission. "The rapid development of Generative AI highlights its potential for original content and new applications. We must redesign talent and retrain workers in digital skills to maximize these benefits." An estimated 2.6 billion people around the world remain offline, according to the International Telecommunication Union (ITU), the UN Agency for Digital Technologies. While overall Internet use is increasing, the benefits of access are unevenly distributed, reinforcing persistent digital divides affecting women and people in countries with lower economic development. The elderly and people with disabilities are among other groups being left behind. “Broadband is fundamental to ensure that everyone can benefit from digital technologies when so many people are still offline around the world," said ITU Secretary-General Doreen Bogdan-Martin, Co-Vice Chair of the Commission. “AI and other emerging technologies can help efforts to achieve universal meaningful connectivity, and it's our job to make sure this happens in a way that is responsible for people and the planet." New Commissioners welcomed at the Spring Meeting are Jessica Rosenworcel, Chairwoman, Federal Communications Commission (FCC), United States; Lew Chuen Hong, Chief Executive, Infocomm Media Development Authority (IMDA); Deemah AlYahya, Secretary-General, Digital Cooperation Organization (DCO); Olayan Alwetaid, CEO, stc Group; Abel Avellan, Chairman and Chief Executive Officer, AST SpaceMobile; Mark Dankberg, Chairman and CEO, ViaSat; Shameel Joosub, CEO and Executive Director, Vodacom Group Limited; Young Shub Kim, President and CEO, KT Corporation; and Isabelle Mauro, Director General, Global Satellite Operators Association (GSOA).

ITU Secretary-General Doreen Bogdan-Martin's Statement on the Visit of UN Secretary-General António Guterres to ITU



We were honored to host UN Secretary-General António Guterres at the ITU Council. The Secretary-General's message on the urgency of bringing everyone online and the need to use technology for the greater good comes at a critical time in our race to seize the digital moment. One-third of the world's population — 2.6 billion people — are still not connected to the Internet. As emerging technologies like artificial intelligence reshape the world, the digital promise remains out of reach for far too many. I echo the UN Secretary-General's call for us all to work together to ensure that advancing technology does not advance inequality. Reconciling the challenges and opportunities of digital technologies as they speed ahead is the test before us. I share the UN Secretary-General's confidence that we can count on ITU's experience with technology standards, digital development and bringing all the stakeholders together in helping harness the power of digital for everyone while mitigating the risks. Members of our Council and I welcomed the opportunity to exchange views on the state of our digital world and to share updates on ITU's work to bring digital connectivity to all, advance the safe and inclusive use of artificial intelligence, foster a sustainable space economy, expand digital opportunities for women and girls, and broadly to achieve an inclusive, open, sustainable, safe and secure digital future for all. We are running against time to ensure the development of responsible AI and other emerging technologies, rescue the Sustainable Development Goals, and to close the world's persistent digital divides. The Summit of the Future just over 100 days away and the 20-year review of the World Summit on the Information Society (WSIS), which is already underway and to be concluded next year, are opportunities for us to meet these priorities. ITU stands ready to play a lead role in the implementation of the Global Digital Compact when it is agreed by the Summit of the Future. As we focus on finding a common vision for the future, the success of the recently concluded WSIS+20 Forum High-Level Event 2024 and the AI for Good Global Summit stands as testimony to ITU's capacity to bring the AI and digital development communities together – and our unwavering commitment to providing an equal seat at the table for developing countries. As the UN Secretary-General said, we need to build bridges to create a digital future that will give everyone, everywhere, equal opportunities. That digital future is now. Let's move forward together to make it a future that works for us all.

Zegona Closes €5 billion Acquisition of Vodafone Spain

UK-based telecom investment company Zegona Communications has announced it has the completed the acquisition of telecom operator Vodafone Spain for €5 billion. Zegona said the transaction will provide attractive returns for investors and stabilise revenues with new commercial initiatives. The company announced its plans to buy the Spanish telco last year. The acquisition marks the Zegona second foray into the Spanish telecoms market. The UK investor will be able to use the Vodafone Spain for up to 10 years post-completion of the acquisition. Vodafone and Zegona will enter into other transitional and long-term arrangements for services including access to procurement, IoT, mobile roaming and carrier services. According to Vodafone, the enterprise value of €5.0 billion represents a multiple of 5.6x Adjusted EBITDAaL and 13.0x Operating Free Cash Flow for the 12-month period ended 30 September 2023.

T-Mobile Agrees to Buy UScellular Wireless Operations in $4.4bn Deal

The announcement confirms rumors last month that suggested Verizon was also in separate talks to purchase some of UScellular's assets T-Mobile has announced an agreement to acquire the majority of UScellular's wireless operations, including its customers, retail stores, and certain spectrum assets. T-Mobile will pay a total of $4.4 billion for UScellular's assets through a combination of cash and the assumption of $2 billion of debt. As part of the deal, T-Mobile will acquire roughly 30% of UScellular's spectrum, the specifics of which were not revealed. UScellular, meanwhile, will keep the remaining 70% of its spectrum assets, as well as its 4,400 mobile towers. T-Mobile will enter a long-term agreement to lease space on "at least" 2,600 of these towers, UScellular said in its press release. Once the deal is finalized, UScellular's 4 million (predominantly rural) customers will gain full access to T-Mobile's nationwide 5G network. The companies say it "will provide more competitive choices for UScellular customers, as they will benefit from T-Mobile's greater resources and ability to provide lower prices, more robust plans, and a better network experience". Customers will also have the option to switch to T-Mobile's plans, which may offer cost savings and additional benefits.

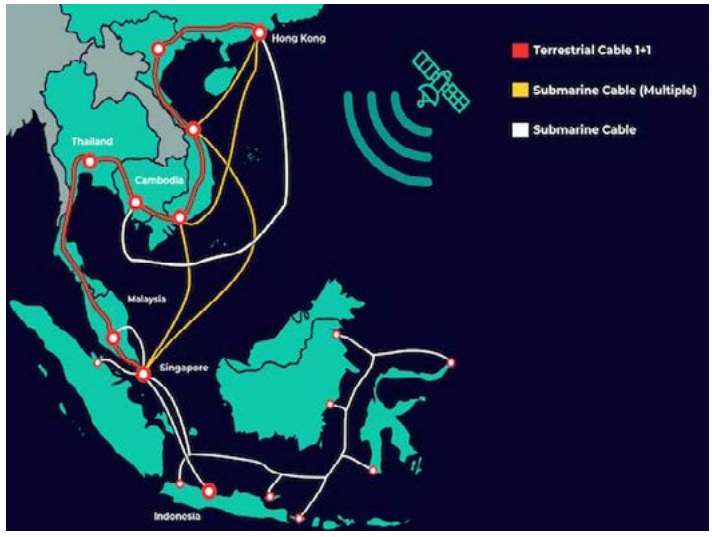
The announcement of the deal follows UScellular undergoing a strategic review in August 2023, which concluded that it was unable to continue funding its wireless operation independently.

Vodafone Offloads €1.7B Indus Towers stake

Vodafone Group sold an 18 per cent stake in India infrastructure player Indus Towers for INR153 billion (€1.7 billion), cash set to be used to pay down debt secured against its assets in the country. The deal, which was rumored to be imminent earlier, leaves it with a stake of 3.1 per cent in the tower company. Vodafone noted proceeds from the sale of the 484.7 million shares to equity investors would "substantially repay" debts of €1.8 billion secured against its assets in India. The operator group noted in its 2024 annual report (for the period to end March 2024) it had debt secured against its stakes in Indus Towers and operator Vodafone Idea. In a stock market statement Indus Towers' largest shareholder Bharti Airtel announced it had bought almost 27 million additional shares in the infrastructure company to take its stake to close to 49 per cent. Reuters reported Vodafone had originally planned to sell a stake of only 10 per cent in the business, but upped this due to strong demand from investors. Indus Towers is one of the largest telecom infrastructure providers in India with more than 219,700 towers and a presence across the country, the company's website claims.

New Telecoms Alliance to Streamline ASEAN Cross-Border Connectivity

A group of telcos and data center providers in Southeast Asia have formed an alliance called ASEAN Connect.One that aims to make it easier for data centers, carriers and OTT players across the region to collaborate on connectivity services. Initial stakeholders in the alliance include APT Satellite, FPT International Telecom, Interlink Telecom, Neocom ISP, NTC Asia, SEAX Global and Telin. Between them, ASEAN Connect.One has access to over 10,000 km of network infrastructure covering Hong Kong, Vietnam, Cambodia, Thailand, Malaysia, Singapore and Indonesia. According to a statement issued on Tuesday, the alliance intends to provide clients a standardized suite of services under the ASEAN Connect. One umbrella, which it says will ensure "reliability, scalability, and efficiency in connectivity and data centre management solutions". To that end, alliance members will pool their resources and expertise to streamline one-stop shopping, single-end billing and unified operational processes, which it says will reduce installation and maintenance lead times. This will enable OTT platforms to deliver content more efficiently, ensuring seamless streaming experiences for users across borders, the alliance says. It will also potentially pave the way for innovative content delivery solutions. "The alliance one-stop shop delivers high SLA with borderless



connectivity supported by a suite of fully redundant terrestrial, submarine cable, and satellite networks, promising a short lead time for seamless integration," the ASEAN Connect.One statement says.

Armenia Targets 80% of Towns with 4G Within Two Years

In the next two years, 4G networks of the three existing operators are expected to be built in 80% of the settlements in Armenia. This was announced by Garegin Baghramyan, Chairman of the Public Services Regulatory Commission (PSRC), during the discussion of the 2023 state budget report in parliament. Baghramyan noted that 5G coverage, including Internet of Things (IoT) technology, will be expanded in Yerevan, Gyumri, and Vanadzor. He also reported that fiber-optic internet is available in 70% of the settlements, which house 97% of the country's population. In the next two years, operators will lay optical cables in the remaining 30% of the small villages. According to Baghramyan, the number of mobile internet users in the republic is estimated at 3.2 million, including both permanent residents of Armenia and temporary residents. Compared to last year, the number of users increased by 8%, and the traffic they consumed grew by 6.5%.

A SNAPSHOT OF REGULATORY ACTIVITIES IN THE SAMENA REGION

Afghanistan

Afghanistan Wireless Communication Company (AWCC) for the first time inaugurated 4G internet services in Afghanistan. The 4G internet services activated with high speed and lower cost in Kabul city and the service will be expanded to all across the country in the near future. Managing Director of AWCC, Amin Ramin said, "the 4G internet services activated with the ability to 300 MB in seconds in Kabul city and will be expanded to all provinces in the nearest time." Afghanistan Minister of Communication and Technology, Najibullah Azizi called the 4G internet service by AWCC an effective step for the growth of economic. "We once again took an important step in terms of infrastructural development and service development with the activation of 4G internet services." In short, 4G is the name given to the fourth generation of mobile networks, just as the previous generation is called 3G. AWCC with 4G offers users faster, more reliable mobile broadband internet for devices like smartphones, tablets and laptops. (June 21, 2024) www.ariananews.af

Bahrain

The mobile phone market in Bahrain has witnessed remarkable growth during the first quarter of 2024 compared to the same period in 2023, with telecom companies attracting approximately 34,000 new mobile phone subscriptions. The number of mobile phone subscribers in the Kingdom jumped by 13.8%, reaching 2.44 million subscribers in Q1 2024, compared to 2.15 million subscribers in the same period last year. Consequently, the mobile phone penetration rate rose from 136% to 155%. This growth is attributed to the continued widespread use of smartphones, which have become an essential tool for communication, accessing information, and entertainment. Prepaid mobile phone subscriptions grew by 7.7%, reaching 1.55 million subscriptions in Q1 2024. (June 4, 2024) www.newsofbahrain.com

The Kingdom of Bahrain, represented by the Telecommunications Regulatory Authority (TRA), chaired the first meeting of the GCC working group responsible for the preparations of the World Radiocommunication Conference 2027. The meeting was held in Bahrain from May 28 to 30, 2024, and was attended by representatives from all GCC countries. During the meeting, the group's structure and work mechanism were approved. Five working groups were formed based on the recommendations of the World Radiocommunication Conference 2027 preparatory meeting report and the Permanent Arab Spectrum Group. Each GCC country will chair one of these working groups to organize and monitor the conference agenda items until 2027. The meeting also reviewed working papers submitted by the GCC administrations and discussed the future agenda of the conference. The aim was to evaluate progress and ensure that all procedures and preparations for the conference agenda items are implemented on time. The working groups have also agreed upon a work plan for the current session, which aims to prepare for the World Radiocommunication Conference 2027. TRA Director of Spectrum, Engineer Hasan Mohamed Hasan stated, "The World Radiocommunication Conferences are highly anticipated events as they play a crucial role in shaping the future of radiocommunications. These conferences focus on managing frequency spectrum resources, satellite orbits, and the advancements in technology, such as smart cities, the Internet of Things, and international mobile communications." He added, "These regional preparatory meetings are vital to the success of global conferences. The 2027 World Radiocommunication Conference is expected to be a key event in strengthening international cooperation and developing new strategies to advance this critical sector." (June 3, 2024) www.tra.org.bh

The Telecommunications Regulatory Authority (TRA) has reaffirmed its commitment to positioning Bahrain as a global leader in connectivity by announcing deployment targets for Bahrain Network (BNET). In line with Bahrain's strategic vision of universal fiber coverage, TRA has outlined key criteria for BNET's efficient and timely deployment of fiber services. To ensure consistent service provision, BNET is required to make fiber services available to all residential properties capable of being occupied, within 10 working days of a consumer's request. This applies to all areas of Bahrain with the exception of Amwaj, as it is currently not part of Bnet Network. The TRA is working to extend the BNET Network to Amwaj. As for businesses, the target is 30 calendar days from the request date. These targets apply specifically to the deployment of fiber to a specific area. TRA General Director Philip Marnick said: "Broadband has become essential. We believe everyone in Bahrain, regardless of their location, should be able to access fiber services. These coverage requirements will ensure that BNET expands its network to make fiber available to everyone."

(May 29, 2024) TradeArabia News Service

Bangladesh

Bangladesh advanced two steps to 110th position in mobile internet speed in April, according to the Speedtest Global Index published by Okla. Previously, the country was ranked 112th in March for mobile internet speed. Meanwhile, for broadband internet speed, Bangladesh moved up two steps from 108th to 106th position in April, a local media outlet reports citing the Speedtest data. According to the report data, the average download speed on mobile internet in Bangladesh was 23.83 Mbps in April, while the upload speed was 10.80 Mbps. The median latency in the country was 26 milliseconds. (May 17, 2024) thefinancialexpress.com.bd

The number of internet subscribers reached 131 million (13.1 crore) at the end of December 2023, including nearly 7 million new users in the last year, according to the recently released data by the country's telecom regulator. The Bangladesh Telecommunication Regulatory Commission (BTRC) data showed that of the internet subscribers, some 118.49 million are mobile internet users and 12.88 million broadband internet users. Meanwhile, with 10.61 million new mobile users in 2023, the number of subscribers in the country reached 190.81 million in December 2023. Bangladesh has currently four mobile companies in operation, three of them being foreign-backed cell phone operators. The number of subscribers of mobile operators – Grameen Phone, Robi Axiata, Banglalink Digital Communications, and Teletalk Bangladesh – stood at 82.20 million, 58.67 million, 43.48 million, and 6.46 million, respectively, at the end of December, the data shows. (May 9, 2024) www.daily-sun.com

Egypt

President Abdel Fattah El-Sisi has witnessed the opening of the Government Data and Cloud Computing Center, as per a statement by the Spokesman for the Egyptian Presidency. Located along Ain El Sokhna Road, this center offers services focusing on big data analytics and artificial intelligence (AI). The inauguration of the Government Data and Cloud Computing Center, also known as P1, marks a pioneering initiative not only in Egypt but also in North Africa. (May 2, 2024) www.zawya.com

Iraq

Chairman of Iraq's Communications and Media Commission (CMC), Dr. Ali Al-Moayyed announced that KPMG has started auditing the revenues of mobile phone companies operating in Iraq from 2017 to 2022. This initiative aims to enhance transparency, combat tax evasion in the telecommunications and IT sectors, and ensure the state receives its full financial dues. A meeting earlier this month, KPMG presented its audit plan, which includes analyzing the financial data of mobile operators, verifying accounting procedures, and conducting interviews with company employees. (May 24, 2024) www.iraq-businessnews.com

Jordan

Chairman of the Telecommunications Regulatory Commission (TRC) Bassam Sarhan announced that Jordan has approximately 7.72 million active phone lines. Addressing the weekly Government Communication Forum, which included the participation of Government Communication Ministry Secretary-General Zaid Nawaiseh, Sarhan highlighted the challenges and opportunities in the local telecommunication sector. Sarhan emphasized the commitment to enhancing the telecommunication sector's strength and sustainability by introducing high-quality services and prioritizing customer satisfaction. Sarhan said that the TRC established in 1995, was the first telecommunication regulator in the Arab world, underscoring the telecom industry's pivotal role as the backbone of numerous sectors, fostering innovation and growth. "The TRC transcends its traditional role and acts as an enabler for local telecommunication operators," Sarhan said, adding that since its inception until April 2024, the commission has generated an income of JD2.27 billion, contributing significantly to the state treasury. Sarhan also said that the total number of fixed internet subscriptions stands at 805,000, with an additional 13,000 5G service subscriptions. He also noted that an individual in Jordan typically consumes around 25GB of data per month.

(May 9, 2024) www.albawaba.com

Kuwait

Under the patronage of the National Cyber Security Center, the Cyber First Kuwait Conference explored Kuwait's cybersecurity landscape to unveil strategies for safeguarding the country's digital future, aligning with the New Kuwait Vision 2035 in digital transformation. The conference gathered cybersecurity experts, including luminaries in information security, risk, compliance, forensics, and cyber law with the aim of fostering collaboration across public and private sectors in a shared goal to stand against the threats posed by malicious cyber-attacks. During her keynote speech, Taiba Al-Qabandi, Vice President for Governance and Risk Management at NCSC, highlighted the critical role of cybersecurity in this era, as cyber threats haven't been just targeted toward individuals, but toward institutions and entire countries. She stressed the National Cyber Security Center's commitment to cooperating with local and international stakeholders in cybersecurity so as to create a secure digital environment. This collaboration aims to promote development, prosperity, and the digital economy while maintaining the trust of operators and investors in information and communication technology. According to her, the importance of this event lies in providing a platform to exchange and share best technological practices, keeping abreast of the latest developments to enhance the security and protection of the digital environment against rapidly evolving cyber threats and attacks. Presenting panel discussions and keynote presentations, the conference discussed various topics ranging from aligning Kuwait's National Cybersecurity Strategy with Vision 2035 to navigating cybersecurity in the era of AI and securing critical infrastructure. In recognition of the cybersecurity, leaders, innovators, solution providers, and influencers, the Cyber First Kuwait awards were granted to the cybersecurity heroes. In response to escalating cyber threats, the Kuwaiti government has instituted the National Cyber Security Strategy, prioritizing cybersecurity at the forefront of its national agenda. The collaborative efforts between the Kuwaiti government and the private sector to enhance cybersecurity maturity are yielding significant results. The introduction of the National Cybersecurity Strategy complements the private sector's increased investment in cybersecurity measures. Projections for 2024 estimate that Kuwait's cybersecurity market will generate an impressive revenue of approximately $2.405 million. (June 11, 2024) www.kuwaittimes.com

In alignment with the directives issued by the Minister of Education and Minister of Higher Education and Scientific Research, Adel Al-Adwani, emphasizing the importance of staying abreast of technological advancements and advancing towards e-government initiatives, the Ministry of Education has unveiled the latest iteration of its mobile application tailored for smartphones, tablets, and other mobile devices. According to an official statement released by the Ministry, the updated version of the application marks a significant milestone in delivering electronic services across multiple platforms. Initially available on iOS systems, the application will soon be accessible to Android users. It boasts a range of distinctive services catering to over 500,000 students, both male and female, approximately 140,000 teachers and administrators, along with numerous parents. Among the key features provided by the application for students are access to private academic data, viewing academic certificates, checking attendance records, downloading medical referral forms, and receiving seat numbers for twelfth-grade exams, among others. Similarly, parents can utilize the app to monitor their children's academic progress, inquire about attendance records, download medical transfer forms, update student account details in the Teams program, and access various other services. Furthermore, the application offers Ministry employees, including teachers and administrators, the ability to access job-related information, track attendance and dismissal records, and avail themselves of other administrative services. This marks the initial phase of service provision, with plans for further expansion shortly. In addition to catering to students, parents, and Ministry personnel, the application also extends services to visitors, offering functionalities akin to those found on the Ministry's website. Notable features include access to Ministry statistics and the academic calendar. The launch of the enhanced mobile application underscores the Ministry's commitment to leveraging digital technologies to enhance accessibility and streamline service delivery in the education sector. (May 15, 2024) www.arabtimesonline.com

Morocco

The Moroccan government wants to connect educational establishments as part of its digital transformation ambitions. As of 2021, around 1.2 million SIM cards have been distributed to students for free internet access. The American wireless network provider Cambium Networks announced the deployment of 18,000 WiFi access points to provide high-speed Internet connectivity in 12 large public universities in Morocco. The project covers more than 200 campuses and 1.3 million students, educational and administrative staff. The campuses are equipped with Wifi 6 solutions from Cambium Networks both indoors and outdoors. These solutions were designed and deployed with 3GCOM, a service integrator partner of the global operator designated for this project. Partners integrated scheduling tools, touchless provisioning, streamlined installation and centralized cloud

management into existing systems to ensure optimal performance. The deployment of WiFi access points in Moroccan universities is part of the "Connected Campus" program launched in 2021 to guarantee students free and secure access to digital tools. More than 1.2 million SIM cards have been distributed to students in partnership with telecom operators. This is part of the government's efforts to accelerate the transformation of the ecosystem of higher education, scientific research and innovation. "Flexible learning, online testing and video collaboration with media-rich content require stable, reliable and affordable performance. Our specific technologies uniquely address the needs for density and scalability while delivering the best possible experience, ensuring uninterrupted learning while remaining affordable," said Morgan Kurk, CEO of Cambium Networks. (June 20, 2024) www.agenceecofin.com

During her visit to San Francisco, Moroccan Minister for the Digital Transition and Administrative Reform, Ghita Mezzour, engaged in a pivotal meeting with OpenAI's leadership. Hosted at OpenAI's headquarters, the session focused on exploring potential research partnerships and developing AI systems tailored to Morocco's unique needs. The Minister emphasized Morocco's commitment to advancing artificial intelligence, showcasing the nation's projects and the potential of its youth in technology sectors. Her visit underscores Morocco's intent to position itself as a key player in global tech innovation, highlighting discussions with top executives in startups and AI industries. (May 15, 2024) www.meatechwatch.com

Oman

Mobile phone subscriptions increased 3% in 2023 to 6.98 million, recording a penetration rate of 135 per 100 individuals. According to Telecommunications Regulatory Authority's biannual report for July to December 2023, there was remarkable growth – 102% to 5,238 – in 5G stations compared to the same period in 2022. Fixed telephone subscriptions increased 3% to 579,000, reaching 82 per 100 households. Fixed broadband subscriptions saw a 5% increase compared to 2022, totaling 562,000 subscriptions and achieving a penetration rate of 80 per 100 households.

(June 6, 2024) www.muscatdaily.com

Oman has made strong progress in its government's digital transformation initiative, achieving a 53 percent completion rate by the end of September 2023, according to a statement by H.E. Dr. Ali bin Amer al Shidhani, undersecretary for Communications and Information Technology in Oman's Ministry of Transport, Communications and Information Technology. Al Shidhani added that the government's average performance in meeting the requirements of its digital transformation initiative was 72 percent as of the end of September 2023. Across the 56 government institutions involved in measuring progress on the digital transformation, the governorates averaged a 54 percent proficiency level for the year 2023. The announcement was made during the second edition of the Government Digital Transformation Forum at Oman Convention and Exhibition Centre. The forum was designed to highlight the achievements of various government institutions in adopting digital technologies. It provided a platform for discussing best practices, future trends and the integration of innovative technical solutions to enhance public services and foster skill development within the sultanate. Oman's digital transformation achievements In his address, H.E. Shidhani detailed Oman's progress, noting the government's commitment to advancing digital transformation. He reported that in the first half of 2023 alone, the country recorded over 30 million electronic transactions using e-authentication and nearly one million electronic signature transactions. From January to October 2023, more than 41 million digital transactions were processed through the government portal, while over 3.3 million ID/residence card certificates were issued digitally. The national platform for electronic integration facilitated approximately 942 million data exchanges from January to October last year. H.E. Shidhani also highlighted the simplification of 2,199 services and the digitization of 1,545 services from January 2021 to September 2023. Additionally, he added that these efforts mark a significant move towards achieving the goal of digitizing all basic government services by 2025, with 61 percent of the target already met. "Oman's dedication to digital transformation is evident as it continues to leverage technology to enhance government efficiency and service delivery, which is critical for socio-economic development and innovation across all sectors," he further stated.

(June 3, 2024) www.economymiddleeast.com

The Telecommunications Regulatory Authority (TRA) received 265 requests to build communications or mobile towers, an increase of three percent from last year, while 203 stations were upgraded with 5G services, an increase of seven percent over the same period last year. Also, 44,555 housing units were connected to fiber optics through the completion of 23 projects in various governorates of the Sultanate of Oman, and schools covered by fixed broadband services reached 96 percent. A regional workshop was recently organized by the Telecommunications Regulatory Authority in cooperation with the International Telecommunication recently discussed achieving a balance between tower connections, their safety, and choosing tower locations in the Arab region. The workshop sought to raise awareness about human exposure to electromagnetic fields (EMF) in line with international recommendations and standards, discuss the regulatory and legal requirements for establishing communications towers challenges, difficulties, and proposed solutions, and explain the impact of urban planning on communications infrastructure, Including communications towers. The workshop highlighted national efforts in Arab countries and presented awareness initiatives to present practical ideas for measuring electromagnetic fields. The workshop included several sessions and working papers

in the electromagnetic fields sector, including the importance of evaluating and measuring levels of electromagnetic fields, which brings together experts to delve deeper into the necessity of developing guidelines and protocols for evaluating levels of electromagnetic fields, where participants will gain ideas about the challenges and opportunities associated with measuring levels of electromagnetic fields. One of the sessions also addresses electromagnetic fields, health research, and future needs, as it reviews the limits of exposure to electromagnetic fields and compliance assessment standards that include the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and the International Committee on Electromagnetic Safety (ICES) of the Institute of Electrical and Electronics Engineers (IEEE). The World Health Organization (WHO) international database on electromagnetic fields, ITU recommendations, and the need to harmonize EMF standards and activities of the Global System for Mobile Association (GSMA). The workshop also includes a session reviewing the impact of urban planning on the telecommunications sector, the process of organizing telecommunications towers, a number of legal regulations related to the establishment of telecommunications towers, and addressing challenges and difficulties. While no health effects are expected from exposure to radiofrequency (RF) fields from base stations and wireless networks, research is still being promoted by WHO to determine whether there are any health consequences from the higher RF exposures from mobile phones. (May 15, 2024) www.omanobserver.om

Pakistan

The Pakistan Telecommunication Authority (PTA) announced 6 Gigahertz (GHz) spectrum band for unlicensed operation for RLAN in Pakistan. With unlocking of this band, Pakistan has become the 10th country in Asia Pacific to embrace 6 GHz for Wi-Fi. Currently, only 60 Countries worldwide have unlocked 6 GHZ (full or partial) for RLAN (Wi-Fi) services. This announcement was made in an event titled “Unlocking Pakistan's Connectivity: Enablement of Next-Gen Wi-Fi in 6 GHz Band”. Speaking on the occasion, Chairman PTA Major General (R) Hafeez Ur Rehman, said that this development has positioned Pakistan as a regional frontrunner in embracing next-generation RLAN (Wi-Fi) technology, joining a select group of forward-thinking nations in Asia to unlock the transformative potential of Wi-Fi 6E. In the event, Speakers from META, Dynamic Spectrum Alliance (DSA), Jazz, Nayatel and Huawei shed light on the benefits of embracing Wi-Fi 6E in Pakistan. It is pertinent to mention that, currently, Wi-Fi in Pakistan operates in two bands: 2.4 GHz and 5 GHz, with available bandwidths of 100 MHz and 150 MHz, respectively. However, these Industrial, Scientific & Medical (ISM) bands are accommodating multiple applications, including everyday technologies like Microwave Oven, Bluetooth, and Cordless Phones, co-exist with Wi-Fi, resulting in congestion. WI FI 6e will overcome the congestion and latency issues. PTA, under the government’s vision of “Digital Pakistan,” aims to ignite a wave of digital innovation to empower businesses and bridge the digital divide by providing more reliable and high-speed internet access, ultimately fostering a more inclusive digital economy in Pakistan. (May 16, 2024) www.pta.gov.pk

Pakistan underscored the importance of regional collaboration in addressing common ICT challenges through dialogue and knowledge sharing. The first meeting of the South Asian Telecommunication Regulators’ Council (SATRC) on Policy Regulation and Services commenced recently in Islamabad. Organized by the Asia-Pacific Telecommunity (APT) and hosted by the Pakistan Telecommunication Authority (PTA), the three-day international meeting convenes regulatory experts and policymakers from Afghanistan, Bangladesh, Bhutan, Iran, India, Maldives, Nepal, Pakistan, and Sri Lanka. The meeting started with an inaugural event attended by industry and government stakeholders. Masanori Kondo, Secretary General of the APT, in his welcome address, urged the delegates to actively engage in insightful discussions and commended the PTA for organizing the workshop. Chairman PTA Maj General Hafeezur Rehman in his inaugural note, underscored the importance of regional collaboration in addressing common ICT challenges through dialogue and knowledge sharing, and highlighted the importance of learning from each other's experiences to effectively introduce new technologies and services while safeguarding consumer rights and nurturing industry growth. Shaza Fatima, Minister of State for IT and Telecom, who was the chief guest at the inaugural ceremony, outlined Pakistan’s visionary initiative of a digitally empowered country with the aim of providing access to every citizen across Pakistan. She emphasized Pakistan’s vast potential as a nation of 250 million, predominantly youth, and how their useful participation can boost growth. She stressed on boarding the 50 percent of the total population, which is female, and reiterated the prime minister’s and the Ministry of IT and Telecom’s commitment to gender inclusion. She lauded the chairman PTA's leadership in bridging the digital gender gap, acknowledging significant strides in this area. The STARC meeting serves as a vital platform for comprehending the dynamic ICT landscape, initiating research analysis, and setting agendas for the next two years. Over the next two days, the meeting will feature 10 sessions, each dedicated to crucial contemporary topics and trends in the regional telecommunication sector. The workshop’s first day featured four sessions. The initial session highlighted insights from APT’s GA-16 and MC-47, focusing on SATRC and beyond. The second session addressed the regulatory challenges of new technologies and smart solutions for broadband. The third session explored maximizing the Universal Service Obligation Fund for digital inclusion. Lastly, the workshop discussed enhancing ICT E-Waste Management Regulations for Sustainable Development, emphasizing the need for effective regulations and strategies to ensure a greener future.

(May 15, 2024) www.brecorder.com

Qatar

Qatar has once again been lauded for its outstanding performance by consistently ranking first in the world on Ookla's Speedtest Global Index for mobile broadband speeds in February, March and April. On the nation's networks, Samsung S24 models attained the highest speeds globally at an impressive 971 Mbps. The Ookla's Speedtest Global Index highlights Qatar's leading position in mobile internet speeds, with the country achieving a historic milestone as the first nation to surpass the 300Mbps threshold, reaching an unparalleled 315Mbps. In addition, Al Rayyan was recognized as the fastest mobile city in the world every month from January to April 2024, underscoring Qatar's unwavering commitment to excellence and innovation in telecommunications. Sheikh Ali bin Jabor bin Mohamed al-Thani, Ooredoo Qatar CEO, said: "We are immensely proud of this result published by Ookla, which not only celebrates the exceptional performance of the local networks but also reinforces Qatar's position as a global leader in mobile internet speeds. "Our commitment to embracing cutting-edge technologies and delivering seamless connectivity is integral to our mission of consistently upgrading our customers' worlds and driving digital transformation in Qatar and the wider region." Ooredoo's continuous investment in network infrastructures and innovative solutions has contributed to achieving these world-class results. Qatar was also named the country with the fastest mobile internet speeds in June and November 2022, demonstrating consistent progress and leadership in the global telecommunications industry. By achieving the highest mobile speed in the world and designating Al Rayyan as the fastest mobile city, Qatar exemplifies the impact of strategic investments and advanced technologies on national and international scales. These accomplishments drive network superiority and play a pivotal role in empowering customers to thrive in the digital era, contributing significantly to the realization of Qatar's National Vision 2030. (June 3, 2024) www.gulf-times.com

The State of Qatar, represented by the Communications Regulatory Authority (CRA), and Romania, represented by the National Authority for Management and Regulation in Communications (ANCOM), signed a Memorandum of Understanding (MoU) to cooperate in the field of electronic communications. The MoU was signed in Bucharest, Romania, by Eng Ahmad Abdulla AlMuslemani, President of CRA, and Valeriu Ștefan ZGONEA, President of ANCOM, in the presence of HE Prime Minister of Romania, Marcel Ciolacu. The MoU reflects the two parties' recognition of the significance of cooperation in the field of electronic communications, and their desire for a fruitful, solid partnership in respect of the electronic communications policy. As outlined in the MoU, both parties will cooperate in areas of common interest, which include satellite regulation policy, including monitoring satellite frequencies and other regulatory aspects of electronic communications. This collaboration will take place through several means, including meetings, seminars, training courses and workshops. Additionally, it involves sharing expertise, best practices and relevant technical information; as well as exchanging views, as appropriate, coordinating common positions and procedures within international organizations; along with other forms of cooperation that may suit both parties. In this regard, Eng. Ahmad Abdulla AlMuslemani, President of CRA, emphasized that signing this MoU reflects Qatar's commitment to enhancing international cooperation and developing the telecommunications sector to achieve sustainable development and technological advancement. He added: "We believe in the importance of effective international cooperation for exchanging experiences and knowledge, as demonstrated in this MoU, which strengthens our relations with Romania and opens new avenues for cooperation in the field." He noted that signing this MoU is part of the CRA's efforts to support Qatar National Vision 2030 and its goals, highlighting the importance of creating a balance between an oil-based and a knowledge-based economy, helping diversify the country's economy and guaranteeing a stable and sustainable business environment. (May 20, 2024) www.cra.gov.qa

Saudi Arabia

The Communications, Space & Technology Commission (CST) has announced the qualification of Global Digital Integrated Solutions Company (Aramco Digital) to obtain a Specialized Radio Network License in the 450 MHz band, after completing the regulatory procedures for the license. The license aims to serve the industrial and business sectors through establishing a dedicated network, independent from mobile networks, operating on the latest global wireless technologies. This network will aim to cater to the specialized needs of various sectors and aims to achieve the Kingdom's leadership in providing specialized broadband communications services. CST Board of Director issued its decision of qualifying the company to obtain the license, that will advance the digital transformation within Industrial, Energy, Transportation, Healthcare and other national sectors, in addition to enabling the 4th industrial revolution applications and industrial internet of things (IIoT). It is worth mentioning that CST has previously announced a public competition in March 2024, for this type of licenses. (June 6, 2024) www.cst.gov.

The Communications, Space and Technology Commission (CST) held a panel discussion on digital innovations for sustainable development, in conjunction with the World Telecommunication and Information Society Day (WTISD) which celebrates "Digital Innovation for Sustainable Development, with the participation of an elite group of sustainability experts across the Kingdom's sectors. The session was moderated by Mr. Naif Sheshah, the Deputy Governor for Strategy and Digital, as it showcased digital innovations and their impact on achieving sustainable development goals (SDGs) and reviewed experiences and lessons learned from using technologies, as well as collaboration in the field digital sustainability. Dr. Ahmed Alsohaily, Group Head of Technology at the Red Sea Global emphasized that sustainability is the heart of all the company's projects, and a mean for our destinations' excellence that attract visitors from around the world, and Dr. Rakan Alseghayer, Acting Digital Sustainability Director at STC indicated that leading a sustainable future requires pioneering and innovative solutions that elevate the ICT sector and harness it services. While Mr. Abdulrahman Alzamil, GM of Sustainability Enablement at Ministry of Economy and Planning discussed technology's importance in developing innovative solutions to address complex sustainability issues more efficiently, and Dr. Abdulaziz Alhomod, Consultant in Emergency Medicine and Clinical Informatics CEO Advisor at the Ministry of Health highlighted the technology role in transforming the world, leading us toward a future where smarter, faster, and more effective healthcare is a reality for everyone. CST is keeping up with the WTISD through its strategic partnership with ITU, to achieve joint goals and raise awareness of the potential and success stories that promote digital innovation and achieve SDGs.

(May 21, 2024) www.cst.gov.sa

Sri Lanka

The Telecommunications Regulatory Commission of Sri Lanka (TRCSL) has granted preliminary approval for Starlink to offer satellite-based internet services in the country, according to Technology State Minister Kanaka Herath. This approval is contingent upon a formal public consultation process. The President's Media Division (PMD) announced that details of the public consultation will be published later.

(June 7, 2024) www.meatechwatch.com

Sri Lanka's government has proposed plans that will allow third-party companies to build telecom towers.

Such changes could come into play, as the country looks to make adjustments to its Telecommunications Regulatory Commission Act (TRCSL) for the first time in 28 years. The TRCSL was set up in 1996 to promote sustained development in the telecommunication industry. State technology minister Kanaka Herath told reporters in Colombia, Sri Lanka, last week that the government will table the amendment, as reported by Economy Next. "We expect to have the parliament debate within two months," Herath said. The amendment also includes the regulation of subsea cable networks. "Right now what we do is the telco companies are the ones who develop them. The TRC allocates 50 percent of it and telco companies build it. After this amendment of the TRC Act, we will be able to open it for independent companies. So that they will be able to develop the towers and hand it over to any telco company," he added. It's hoped that the move to allow third-party firms to develop and operate telecom towers will speed up the pace at which the towers are put up. Herath said the government is aiming to build 276 towers to improve connectivity across the country and support the government's target to grow the digital economy to $15 billion in 2030 from last year's $2.3 billion. Financial constraints and a tough economic landscape in Sri Lanka have meant that telcos in the country have had to cut their budgets for towers. Right now when we build towers, we share it. Say if Dialog builds a tower, they share it with (Sri Lanka) Telecom and with other telco companies," Herath said. "Similarly, we are trying to give it to the third party so that it will develop faster than we have right now." (May 15, 2024) www.datacenterdynamics.com

Tunisia

Tunisian Prime Minister Ahmed Hachani has approved the roadmap that will lead to the introduction of 5G commercial services in the country at the start of 2025, reports Kapitalis. This process will see the creation of a new commission in charge of preparations to grant the 5G licenses.

(June 19, 2024) www.telecompaper.com

Turkey

Türkiye's first domestic telecommunications satellite, Turksat 6A, will be sent from the country's capital to the Cape Canaveral Spaceport in the US state of Florida, from where it will be launched into space. Turkish Transport and Infrastructure Minister Abdulkadir Uraloglu and Industry and Technology Minister Mehmet Fatih Kacir will be at the Murted Airfield in Ankara province, attending the ceremony at midday. Turksat 6A will be sent to the US on an Antonov AN-124 cargo plane after the ceremony. The journey will take roughly a day, with launch procedures to be initiated at the facilities of private space company SpaceX upon arrival as launch is scheduled for July 8-15. Turksat 6A will be positioned at an orbit about 35,800 kilometers (22,245 miles) from the ground at 42 degrees east, after which the coverage area of Turkish satellites will have extended over India, Thailand, Malaysia, and Indonesia, a population of 5 billion in total. Several different agencies and companies are involved in the Turksat 6A project including the Transport and Infrastructure Ministry, satellite technology firm Turksat, defense industry companies Aselsan, Turkish Aerospace Industries, and the Space Technologies Research Institute of the Scientific and Technological Research Council of Türkiye (TUBITAK) Türkiye is among the few countries capable of producing its own communications satellites, and upon the success of Turksat 6A, it now aims to become a satellite exporter.

(June 4, 2024) www.aa.com.tr

United Arab Emirates

The Telecommunications and Digital Government Regulatory Authority (TDRA) has achieved the ISO certification for the Use of Social Media in Emergencies. This certification, developed by the International Organization for Standardization (ISO), acknowledges TDRA's adherence to a comprehensive set of standards. These standards evaluate an organization's agility, security, and business continuity, all supported by an effective and impactful communication strategy across various social media platforms. This standard offers extensive guidelines for organizations to follow on social media before, during, and after emergencies. It helps ensure the provision of essential services during crises, maintain open communication channels with customers and stakeholders, and support business continuity under all circumstances. H.E. Mohammad Al Kitbi, TDRA Deputy Director General for Support Services, highlighted the importance of this achievement. He said: "We live in an era of rapid and continuous change, where quickly reaching customers and the broader community is essential under all circumstances. This highlights the importance of social media channels as a means of interaction during exceptional situations. At TDRA, we have implemented a comprehensive digital communication strategy that identifies audience segments, the channels each group uses, and the appropriate messages for them. This strategy aligns with TDRA's goals and "We the UAE 2031" vision, reflecting our role as a regulator and enabler of telecommunications and digital transformation in the UAE. (June 4, 2024) www.tdra.gov.ae

On the sidelines of the Digital Readiness Retreat 2024, the Telecommunications and Digital Government Regulatory Authority (TDRA) launched the UAE Design System 2.0 (DLS 2.0) for Federal Government Websites (https://designsystem.gov.ae) with the support of the Higher Committee for Government Digital Transformation. The system aims to enhance customer access to information and services by offering user-friendly designs that align with customer preferences and incorporate the latest advancements in the field. TDRA conducted a workshop engaging various government entities to explain the principles, foundations, and implementation methods of the new system. The workshop shed light on the fundamental visual design elements and requisite guidelines to enhance usability and user experience (UX) across federal government websites. The workshop catered to two primary categories of participants. The first category comprised directors of corporate communications and IT departments in federal entities overseeing digital identity, design, and digital assets. The second category included IT project managers in federal entities focusing on website development, digital applications, and related front-end tasks. (May 16, 2024) www.tdra.gov.ae

REGULATORY ACTIVITIES BEYOND THE SAMENA REGION

Australia

The Communications and Media Authority (ACMA) has begun legal action against Optus, the country's second largest telco, over a data breach it suffered in 2022. The watchdog has filed legal proceedings to the Federal Court, alleging that Optus "failed to protect the confidentiality of its customers' personal information from unauthorized interference or unauthorized access," and was therefore in breach of the Telecommunications (Interception and Access) Act of 1979. Between 17–20 September 2022, Optus suffered a data breach that affected up to 10 million current and former customers, comprising a third of Australia's population. The breach resulted in the illegal acquisition of sensitive information, including names, dates of birth, addresses, and contact details. The then CEO Kelly Bayer Rosmarin was widely criticized for her handling of this situation, with the matter made worse by a major network outage in October last year that left nearly half of Australia's population of 26 million without mobile or internets services for over 12 hours. Bayer Rosmarin resigned in November, saying that her resignation "is in the best interest of Optus moving forward." Optus's parent company Singtel said in a statement to investors that it intends to defend the legal challenge from the ACMA, adding that "Optus Mobile is not able to determine the quantum of penalties, if any, that could arise." The company is already battling another lawsuit relating to the cyber-attack. After the event occurred, Optus hired Deloitte to conduct an assessment into the attack's causes. Since then, those affected by the attack have hired law firm Slater and Gordon to initiate legal action, aiming to get the results of Deloitte's investigation published.

(May 23, 2024) www.totaltele.com

Austria

The Austrian data protection authority (DSB) announced that it had initiated its investigations into the telecommunications sector. The DSB noted that the investigations are carried out as part of the priority procedures in which those responsible or processors in a specific sector are subjected to an in-depth examination. According to the DSB, several telecommunication companies will be examined with regard to compliance with the General Data Protection Regulation (GDPR). The checks begin with the instruction to submit the list of processing activities and submission of a questionnaire in which the companies are asked to comment on general and sector-specific data protection issues. Additionally, oral negotiations and on-site examinations are possible in the further process. (May 7, 2024) www.dataguidance.com

Chile

Claro Chile, a subsidiary of giant mobile network operator América Móvil, has won the second 5G tender in Chile, making it the fourth operator permitted to offer 5G services in the country. The BNamericas news service says Claro Chile submitted a single offer of 83.5 billion pesos (about US$90.1 million) for the five 10MHz blocks in the 3.5GHz band. Rival operator Entel, meanwhile, offered a little over half that sum for the spectrum. The previous auction in March resulted in a tie between Claro and Entel, the only operators that put forward proposals. Under the terms of the auction Claro is now obliged to cover 100 new localities and 1,500 kilometers of roads. In 2021 operators WOM, Telefónica Movistar and Entel won 50MHz each in the 3.5GHz band for 32 billion pesos (UDS$34.2 million), 117 billion pesos (US$125 million) and 100 billion pesos (US$106.8 million) respectively. All three operators are offering 5G in Chile. Operators in Chile also have licenses in the 26GHz band for 5G services, though it's not all good news for the tender process. Financially troubled WOM is planning to relinquish its 26GHz concession and a 50:50 Claro/VTR joint venture may suffer if both companies don't buy one half of the JV's convertible notes before 1 August. América Móvil has done so and is now waiting for VTR owner Liberty to respond. Telecommunications and transport minister Juan Carlos Muñoz has reportedly expressed his hope that there will be a third 5G tender.

(June 19, 2024) www.developingtelecoms.com

The Chilean regulator, Subtel, opened the auction of the 3.5 GHz band, offering 50 MHz in total. Claro and Entel submitted bids. The regulator expects to award up to five spectrum licenses. The spectrum must be used to install and operate high-speed 5G networks. Licenses will be awarded to the bidders that achieve the highest score in the evaluation of their technical projects. The score is based on network deployment time, the population served, coverage and new infrastructure to be installed. There will be a tender process if two or more applications achieve the same score.

(May 24, 2024) www.cullen-international.com

China

The Ministry of Industry and Information Technology of China ("MIIT") issued the "Circular on Pilot Programs for Expanding the Opening-up of Value-added Telecom Business to Foreign Investment". This marks China's renewed effort to enhance foreign investment access and bolster infrastructure development to meet the growing demand for telecoms services. In the past, China has regulated foreign investment in the telecoms sector, with the extent of restrictions depending on the relevant telecoms service in question. In particular, China has imposed limits on foreign investment in value-added telecommunications ("VAT") services companies that provide internet information services, which are generally subject to a 50% cap, with a few exceptions. Historically these foreign ownership restrictions have led to the widespread adoption of the Variable Interest Entities (VIE) structure in the relevant industries, as well as foreign investors adopting joint ventures with local partners to conduct business in China. However, through the recently issued Circular, the MIIT has announced plans to expand the opening-up of the VAT industry in China. The Circular further eases foreign investment shareholding restrictions in 6 VAT sectors initially across 4 pilot areas, namely Beijing, Shanghai, Hainan Free Trade Port, and Shenzhen, laying the groundwork for broader opening-up in the future as well. (May 9, 2024) www.herbertsmithfreehills.com

China's telecommunications industry registered steady expansion in the first quarter of 2024, official data showed. The combined business revenue of firms in this sector totaled 443.7 billion yuan (about $62.44 billion) in the period, rising 4.5 percent year-on-year, according to the Ministry of Industry and Information Technology. Combined revenue of emerging businesses, such as big data, cloud computing, and the Internet of Things, logged double-digit growth. China's three telecom giants -- China Telecom, China Mobile and China Unicom -- saw their revenue from emerging businesses increase by 12.2 percent year-on-year, driving up the telecoms sector's total revenue by 3 percentage points.
(May 5, 2024) www.chinadailyhk.com

Congo

Mobile internet adoption in the Democratic Republic of the Congo surged 40% to 28.9 million subscribers, according to the country's telecoms regulator. Ecofin Agency reported, the Regulatory Authority for Post and Telecommunications of Congo (ARPTC) detailed the growth in Q3 2023, was compared to Q3 2020 when the DRC recorded 20.7 million mobile internet users. The DRC has a population of 75.6 million people and is regarded as a greenfield for operators due to its size. In 2013, the country only had 1.4 million subscribers. A reason was not provided by ARPTC for the three-year growth. But the data point aligned with mobile phone users, this figure grew from 39.9 million to 56.1 million in the same period. Data traffic surged from 43.3 billion megabytes in the third quarter of 2020 to 182.2 billion megabytes by the third quarter of 2023. Average monthly data usage grew from 751.95 megabytes to 2,028.97 megabytes. The ITU announced the DRC has a low mobile penetration rate at 20.4% when compared to the African average of 40%. (June 21, 2024) www.developingtelecoms.com

Czech Republic

The average monthly data usage per mobile data SIM card reached 9.8 GB – up from 7 GB in the previous year says the CTU. The total volume of mobile data transferred reached nearly 1.35 thousand PB, showing an estimated year-on-year growth of around 43 percent. Among its other areas of focus in 2023, the regulator said, were anti-spoofing measures, auctioning digital radio broadcasting spectrum (DAB), and the first subsidy call for boosting the signal on trains. The DAB spectrum auction, which ended in February 2024 with the grant of block allocations to eight successful bidders, aims to promote rapid development of broadcasting networks to cover the population, territories and motorways.
(June 6, 2024) www.5gobservatory.eu

Dominican Republic

The Dominican Republic, 250 MHz of spectrum is being offered in the 700 MHz, 2.3 GHz and 3.5 GHz bands. The spectrum must be used for the development of high-speed 5G networks and to support universal service. The auction was originally scheduled for March 2024 but was postponed to May 2024.
(May 24, 2024) www.cullen-international.com

Ethiopia

The Ethiopian government reportedly halted a process to potentially offload a 45 per cent stake in Ethio Telecom to foreign bidders, as local investors begin to show a bigger appetite. CEO at Ethiopian Investment Holdings Abdurehman Eid told the outlet there were foreign bidders vying for a stake in the state-owned operator, "but each of them left the process at one point". For one, Orange Group pulled out of a potential deal last year, telling Mobile World Live (MWL) "the conditions do not allow for the rapid deployment of our strategy". Emirati telecoms giant e& was also reported to be among the interested parties, but no agreement materialized. Bloomberg reported Eid had decided it was "probably better to halt the process" of potentially selling the stake to an overseas bidder, opting to offer around 10 per cent to local retail investors, who are showing "a huge appetite" for a holding in Ethio Telecom. Ethio Telecom, the country's largest operator, will be listed on the Ethiopian Securities Exchange that is due to launch in October – on track with a plan announced by Prime Minister Abiy Ahmed Said. The operator booked more than 74 million subscribers as of January and gained $191.6 million profit in the first half of 2024. It was the only telecoms company operating in the East African country until Safaricom entered the market in 2022. There was work being done by the government to find a third player.

(June 13, 2024) www.mobileworldlive.com

Germany

The regulator Bundesnetzagentur (BNetzA) confirmed that it will extend spectrum licenses in the bands by five years and attach strict coverage obligations. The regulator says it has opted for an extension to eventually auction the bands alongside spectrum in other bands where licenses are due to expire in 2033. "From our point of view, there are strong regulatory reasons why a competitive procedure, commonly known as an auction, should not be carried out" says BNetzA President Klaus Müller. "The primary reason for this is that with an extension, we can align the expiry of these usage rights with those that are expiring later." Instead of holding an auction, BNetzA says it will implement strict coverage obligations for the country's existing three major mobile network operators (MNOs). These are as follows:

- By 2030: Cover 99.5 per cent of the country with 50 Mbit/s download speed
- By 2029: Cover 99 per cent of rural households with 100 Mbit/s
- By 2029: Cover all federal highways with 100 Mbit/s
- By 2029: Cover all secondary roads and waterways with 50 Mbit/s
- By 2030: Cover all country roads with 50 Mbit/s

BNetzA will also charge an assignment fee for the five-year extension, which Müller says will be just below €800 million. The proposal also includes concessions for the country's emerging fourth operator 1&1. BNetzA says it will require the three national MNOs to share at least 2 x 5 MHz of sub-1 GHz spectrum with 1&1 and to continue existing roaming agreements with the operator. (May 15, 2024) www.5gobservatory.eu

German media authority MSA has put out a tender for a pilot project for the distribution of TV channels in 5G Broadcast in the city of Halle. The media authority confirmed this to German industry publication Cable!vision Europe. In the tender, published in state gazette of federal state Saxony-Anhalt on 29 April 2024, platform providers are invited to submit applications for the allocation of the corresponding broadcast capacity. This concerns terrestrial channel 40 at the Halle transmitter site, which is to be used to test the distribution of TV channels in 5G Broadcast. The allocation is limited to the duration of the trial of two years with the possibility of an extension. The allocation is subject to the condition that the local TV broadcaster licensed for the distribution area is broadcast on the platform. The applicant must include the platform's planned channel lineup and agree to prepare a report with the results of the project. The applicant must also state when transmissions can commence. According to the magazine article, the aim is to kick off the in time for the UEFA Euro 2024 Football Championship, which starts on 14 June 2024. The pilot project in Halle marks the first time that commercial broadcasters can participate. In previous 5G Broadcast trials in Germany, only public broadcasters were involved alongside other partners, such as the 5G project in Bavaria (BR), the pilot project by WDR and Vodafone in North Rhine-Westphalia and the 5G Media2Go test run in Baden-Württemberg (SWR). A 5G Broadcast-compatible reception device, such as a smartphone, tablet or in-car entertainment system, is sufficient. Prototypes are already available.

(May 3, 2024) www.broadbandtvnews.com

Ghana

The Government of Ghana, Ascend Digital, K-NET, Radisys, Nokia and Tech Mahindra, with Mobile Network Operators (MNOs) AT Ghana and Telecel Ghana, have announced their partnership on a new shared infra Next-Gen InfraCo. (NGIC). This collaboration aims to deliver affordable 5G mobile broadband services across Ghana. The Next-Gen Infrastructure Company (NGIC) has been awarded 5G license and expected to launch 5G services across Ghana within the next six months, followed by expansion to other parts of Africa. Next-

Gen Infrastructure Company (NGIC) will be the first 5G Mobile Broadband Shared Infrastructure Entity to build a nationwide 4G/5G network. The company will also work with MNO partners to launch affordable 4G/5G-enabled FWA CPEs and smart phones in Ghana within this calendar year. The partnership aims to enhance the lives of Ghanaians by introducing digital services in education, healthcare and digital payment transactions through P2P (peer-to-peer), P2M (peer-to-merchant) and M2M (merchant-to-merchant) systems, thereby reducing digital divide and promoting financial inclusion. Additionally, the multiplayer partnership will support NGIC in the entire deployment of network infrastructure and associated services, as communications service providers (CSPs) are looking to address enterprise and consumer markets with enhanced digital services. To achieve this, Tech Mahindra will build a Cloud Native Core Network powered by OEM (original equipment manufacturer) platforms. NGIC plans to adopt India's model of affordable handsets, digital platforms and localized content and applications. The goal is to replicate this high-speed mobile data model across Africa, beginning with Ghana. Ursula Owusu-Ekuful, Minister for Communications and Digitalization for the Republic of Ghana, said, "The creation of a shared 5G Mobile Broadband Infrastructure is critical for delivering affordable, high-speed data access to the people of Ghana and help achieve our Digital Ghana vision. The creation of NGIC as a neutral, shared platform, accessible to all mobile network operators and tower companies, will help to expand 5G services rapidly across the country. (June 3, 2024) www.vanillaplus.com

Ghana's government has awarded a 5G license to a new "shared infrastructure" operator backed by India's Reliance Industries and companies including Microsoft and Nokia. Next-Gen InfraCo (NGIC), as it is branded, will be 55% owned by Ascent Digital Solutions, a digital marketing agency, and K-NET, a consulting firm, with another 10% held by the government of Ghana, according to media reports. Others involved in the project include Reliance's Radisys unit, Indian systems integrator Tech Mahindra and Ghanaian service providers AT Ghana and Telecel Ghana. Having secured a license with an exclusive right to offer 5G services in Ghana for the next decade, it is targeting a service in the next six months and has a stated goal of making 5G mobile broadband services affordable. "Next-Gen Infrastructure Company (NGIC) will be the first 5G Mobile Broadband Shared Infrastructure Entity to build a nationwide 4G/5G network," said the company in a press release. "The company will also work with MNO [mobile network operator] partners to launch affordable 4G/5G-enabled FWA [fixed wireless access] CPEs [customer premises equipment] and smartphones in Ghana within this calendar year." NGIC is to invest $145 billion in capital expenditure over the next three years, according to reports. (May 28, 2024) www.lightreading.com

India

India has offered telecom spectrum worth around 962.38 billion rupees ($11.53 billion) for auction, it said in a release, even as analysts expect lacklustre participation from players as they shore up their existing spectrum. A total of 10 GHz of radiowaves is up for sale in this auction, ranging between 800 MHz to 26 GHz. The Indian government derives a big chunk of its revenue from spectrum auctions, which award telecom companies rights over airwaves for a particular period. During the previous auction in August 2022, telecom players Vodafone Idea (VI), Bharti Airtel and Reliance Industries' Jio Infocomm together picked up 5G spectrum worth $19 billion to boost capacities in the world's second-largest smartphone market. The amount of spectrum up for auction this time around is lower than the previous year's, as telecom firms have already acquired enough to meet most of their bandwidth requirements in the previous auction, also a likely indication that they would not be bidding for bigger blocks. "Bidding unlikely to be a spirited exercise... we do not expect any player to bid aggressively at the auction," analysts at Antique Stock Broking said in a note. Antique expects Bharti to bid for some of its expiring spectrum - airwaves where its license is expiring - worth 38.2 billion rupees, while Jio, which has no spectrum pending for renewal, is likely to be selective. Debt-ridden VI may only bid for spectrum that is expiring or to fill in gaps, the note added. The auction was delayed twice until a new government was elected, local newspaper The New Indian Express reported earlier this month, citing unnamed officials. Shares of the two listed telecom firms erased early gains on the day, with VI down 0.17% and Bharti Airtel down 0.3%. (June 25, 2024) www.ca.finance.yahoo.com

The Department of Telecom (DoT) has directed telecom operators to block 28,200 mobile handsets and carry out immediate reverification of 20 lakh mobile connections for their alleged link with cybercrimes, according to an official statement. DoT, Ministry of Home Affairs (MHA), and state police have joined hands for curbing the misuse of telecom resources in cyber-crime and financial frauds and aim to dismantle networks of fraudsters and protect citizens from digital threats, it said. "Analysis carried out by MHA and state police has revealed that 28,200 mobile handsets were misused in cybercrimes. The DoT further analyzed and found that a staggering 20 lakh numbers were used with these mobile handsets. "Subsequently, DoT issued directions to telecom service providers for pan India

blocking of 28,200 mobile handsets and to carry out immediate reverification of 20 lakh mobile connections linked to these mobile handsets and disconnect failing re-verification," the statement said. The DoT launched Chakshu portal two months ago to handle telecom fraud-related grievances. Since the launch of the portal, the department has blacklisted 52 entities involved in sending malicious and phishing SMSes, blocked 348 mobile handsets across the country, and flagged 10,834 suspected mobile numbers for re-verification. Besides, DoT has blocked 1.58 lakh unique mobile device identification number IMEI due to involvement in cybercrimes and financial frauds or mobile connections taken on fake or forged documents.

(May 10, 2024) www.zeebiz.com

Malaysia

Telecommunication companies planning to bid for the dual 5G network need to finalize the share subscription agreement (SSA) within 20 days, says Communications Minister Fahmi Fadzil. He also said that the Malaysian Communications and Multimedia Commission (MCMC) is expected to announce the tender process for the roll-out's second network. "As the coverage of populated areas for 5G network has surpassed 80%, the next step would be for the mobile network operators to complete the SSA process, which is their equity share in Digital Nasional Berhad (DNB). "The Cabinet was informed that the meeting between the telco companies was held on May 20 and they were given 20 days to decide their equity share in DNB within that period," he told reporters on May 21. He added that the telco companies need to complete the SSA before they are allowed to bid for the tender. In December, five mobile network operators (MNOs) signed a SSA with DNB as part of the transition from a single wholesale network (SWN) to a dual network. Fahmi said the Cabinet has agreed that the implementation of the 5G network will shift from SWN to the dual network once the coverage reaches 80% of the populated areas. "Overall, there are a total of 13.2 million 5G accounts nationwide. This is a positive achievement and proof that the roll-out was successful policy-wise and through the monitoring body (MCMC)," he said. Of the total number of accounts, Fahmi said that there are 12.7 million individual users and 422,609 enterprises. He said a memorandum of understanding will be signed between MCMC and the Malaysian Investment Development Authority (Mida) to further boost 5G participation among small and medium enterprises. "Within a week or two, MCMC and Mida will sign an MOU to help these SMEs adopt and implement a 5G network in their businesses," he added.

(May 21, 2024) www.thestar.com.my

Mexico

El Instituto Federal de Telecomunicaciones (IFT), the Mexican telecommunications regulator, has announced plans to put out to tender 6,158 spectrum blocks for wireless access services. In what it describes as a consultative process, it is calling for comment from all parties interested in the bidding process, as well as the academic sector, experts, private, public and civil society organizations and the general public. The process is open for a period of 20 working days, from 7 May to 3 June. The tender, once public consultations are over, will make portions of spectrum in the 600MHz (for both national coverage and what are known as partial service areas or APS), L-band (national), AWS (APS), PCS (APS), 2.5GHz (APS) and 800MHz (APS) bands available to operators. Concessions will be granted for 20 years. Some of the bands could be used for 5G networks, though this announcement does not outline minimum reference value or coverage commitments. IFT said it had about 330MHz of spectrum available for bidding. The same source points out that spectrum pricing could be an issue, having put off would-be buyers during previous bidding processes. Still, there's quite a long time to go. Expressions of interest are expected by this September. Evaluation and issuance of certificates of participation are to take place no later than March 2025. The presentation of offers is due to take place from May 5 2025 – just under a year from now.

(May 9, 2024) www.developingtelecoms.com

Netherlands

The Dutch government will launch an auction for bandwidth for 5G networks on June 25, it said. The auction will award at least three telecom providers with 5G bandwidth, as bidders will be allotted a maximum of 40% of the available space, the Ministry of Economic Affairs and Climate Policy said. (May 28, 2024) www.xm.com

New Zealand

The Commerce Commission has granted clearance for local carrier One New Zealand Group to acquire 100% of the shares in Dense Air New Zealand, the body said in a statement. The commission noted that Dense Air currently owns the management rights to 2×35 megahertz of spectrum in the 2.6 GHz band. In reaching its decision, the commission considered the potential impact of the proposed acquisition on competition in wholesale and retail telecommunications markets in New Zealand. The body considered that the acquisition is unlikely to substantially lessen competition in the domestic telecom market. "Based on the evidence before us, we are satisfied that One NZ acquiring Dense Air's spectrum is unlikely to substantially lessen competition in telecommunications products and services compared with the counterfactual. Post-acquisition, One NZ would continue to face significant competition from other retail mobile and broadband providers," said John Small, head of the commission. "We do not consider that the acquisition is likely to substantially affect [rival telco] 2degrees' competitive effectiveness. While the acquisition means that it will not have any spectrum in the 2.6 GHz band, it has access to other spectrum in the mid-band that it can deploy. In addition, 2degrees has options to expand the capacity of its network by deploying its existing spectrum at more sites and by improving spectral efficiency," Small added. (May 8, 2024) www.rcrwireless.com

Nigeria

Nigeria's economic growth faces a potential hurdle due to the decline in the telecommunication contribution to the Gross Domestic Product. This decline is because of the sector's weakening financial performance. The telecoms sector has long been one of the pillars of the Nigerian economy, which is heavily reliant on its services sector. "The telecoms sector is a major contributor to the economy of Nigeria and provides the foundations for the digital transformation process," said GSMA, the global industry body for telcos. Telecom was one of the sectors that helped the country exit a recession in the fourth quarter of 2020. The mobile telecoms sector accounted for 13.5 per cent of total GDP in 2023, GSMA noted. However, in Q1 2024, the telecom sector's GDP contribution in real terms dropped by 12.60 per cent quarter-on-quarter to N2.67 trillion, due to sustained losses by telecom operators. The information and communication sector, dominated by the telecoms sector, also experienced a 9.89 per cent decline in q-o-q in real terms. While it achieved a year-on-year growth rate of 5.43 per cent, it still experienced a 4.89 percentage points decline from the corresponding period of 2023.

(May 28, 2024) www.businessday.ng

Philippines

Satellite provider Intelsat has become the first foreign company to secure regulatory clearance to sell its services in the Philippines to broadband and mobile operators. Intelsat announced that it has received government approval to sell its products to telco carriers in the Philippines, making it the first foreign GEO satellite operator to enter the country. Intelsat was granted a satellite service providers and operators (SPPO) license by the Department of Information and Communications Technology, allowing it to provide network-from-space and backhaul solutions to telcos across the archipelago. The government provided Intelsat with an SPPO license to raise connectivity quality and reach in the Philippines. In particular, Intelsat's entry in the country is seen to improve the reliability and speed of internet services in the countryside. With the license, the Philippine partners of Intelsat can expand their cellular coverage beyond the terrestrial limits of their respective infrastructure setup. Internet service providers (ISP) may also work with Intelsat to reach some of the most isolated barangays. Given that Intelsat's satellites fly in space, telcos can maximize them to add redundancy to their land-based assets like fiber cables.

(May 29, 2024) www.philstar.com

Romania

Internet users in Romania last year recorded an average download speed of 587Mbps for fixed line internet in 2023, up by around 10% compared to 2022, and an average upload speed of 548Mbps, up by an impressive 20%, according to Romanian regulator ANCOM based on tests it carried out using its Netograf platform, which offers access to detailed statistics on several broadband quality parameters. In all the regulator carried out 85,000 fixed line tests. One of the more striking findings from ANCOM is the big jump in wi-fi speeds connecting to fixed line networks. In 2023, the average download speed for wi-fi was 156Mbps which was up 15% compared to 2022, while the average upload speed was 126Mbps (up 13%). "From the analysis of statistics for 2023 for fixed internet, there is generally a consolidation of a trend of balancing average download and upload speeds in fixed networks (cable and wi-fi) for large providers on the Romanian market (depending on the number of connections), which suggests adapting electronic communications services to users' needs,"

stated the regulator. According to think tank, Blue Europe, Romania's internet penetration rate is one of the highest in Europe, surpassing even some of the continent's wealthiest countries like France, Belgium, Finland, and Austria. In January 2023, Romania had 17.82 million internet users, indicating an 88.9% internet penetration rate of the total population. Blue Europe points out that Romania stands out in the European Union and globally for offering some of the most affordable fixed internet services. Climbing three positions in the global ranking, Romania now boasts an average monthly broadband cost of RON 35 (USD 7.57), marking a decrease from the previous year. The range of internet packages varies significantly, with the cheapest subscription at RON 6 (USD 1.30) and the most expensive at RON 45 (USD 9.73). (May 15, 2024) www.mobileeurope.co.uk

South Africa

SA's telecom regulator is looking to increase access to 5G communication services by releasing a new batch of radio frequency spectrum that can be shared between operators, signaling a major shift from present local market deployment practices. After investigating the future trajectory of the telecom market, the Independent Communications Authority of SA (Icasa) is preparing to introduce dynamic spectrum access (DSA) and an opportunistic spectrum management framework. This will be for two 5G frequency bands: 3,800 to 4,200MHz and 5,925 to 6,425MHz, Icasa said in the Government Gazette recently. DSA is a technique to improve efficiency in using radio frequencies on which data is transmitted.

To use an analogy, radio waves can be visualized as lanes on a highway. In the conventional spectrum allocation, specific frequencies, or lanes, are designated for specific uses such as TV or radio broadcasting and cellphone calls. The problem is that some frequencies are not constantly in use, such as TV channels at night. DSA allows other devices to use temporarily unused lanes, allowing for sharing of spectrum assets. The technology works to find underutilized frequencies and lets devices use them without interfering with existing users. In SA, the issue of clogged spectrum bands is especially pertinent. In March 2022, Icasa achieved a milestone in finalizing a spectrum auction generating R14bn for the government.

However, some of the spectrum sold is still occupied by broadcasters, which still need to transition from analogue to digital TV as part of the digital migration process. The authority has invited players in the sector to make written submissions on the technical information of stations operating in the earmarked frequency ranges.

(June 25, 2024) www.businesslive.co.za

The Independent Communications Authority of South Africa (Icasa) has announced the allocation of the IMT2300 frequency band solely for use in cellular networks. As a result, all non-International Mobile Communications (IMT) must be cleared from the band by 31 May 2024, with one aeronautical exception. Icasa published the radio frequency assignment plan for the IMT2300 band in the Government Gazette on 15 May 2024. The IMT2300 band ranges between 2300MHz and 2400MHz and will be used for IMT-Time Division Duplex (TDD). Telkom is currently assigned the first 60MHz of the band, so the remaining 40MHz will be assigned by prospective licensees being invited to apply. The spectrum will be assigned for 3G, 4G, 5G, and other IMT use. However, South Africa is phasing out 3G services, so it is unclear whether the older technology will feature in this band. Because it is a TDD network, adjacent TDD networks should be synchronized with the uplink and downlink frames aligned in time to avoid interference. This also ensures the efficient use of the spectrum resources. The Gazette states that systems seeking an assignment of the spectrum need to promote spectral efficiency. Therefore, Icasa encourages using capacity-enhancing digital techniques to promote efficient spectrum use. Icasa said that all non-IMT services are to be cleared from the spectrum, except Aeronautical Mobile Flight Testing in the FAR147 area, as the band will be strictly used for IMT purposes. Prospective spectrum licensees must note that if their radio system causes harmful interference to other radio stations or systems, they will be responsible for modifying it. The spectrum will be coordinated according to the Harmonized Calculation Method for Africa (HCM4A) Agreement to ensure no interference with the spectra of other Sub-Saharan countries.

(May 17, 2024) www.icasa.org.za

South Korea

The South Korean Science Ministry has announced it will revoke the license of new mobile carrier, Stage X, for failing to meet the legal requirements to run its business. Stage X is the country's fourth mobile operator (after SK Telecom, LG U+, and KT), and is owned by a consortium led by tech giant Kakao Corp. and other unnamed partners. It has not met set requirements, which include paying the paid-in capital of KRW 205 billion ($149 million) that was due last month. The ministry has since requested additional reasoning and compliance from the company but the problems are still unresolved. Therefore, the ministry will launch proceedings to revoke the company's license before formally cancelling it. "We concluded the capital raising claimed by Stage X could not be trusted and that it would be difficult to properly carry out the business if the capital specified

in the allocation application was not properly secured," said second Vice Science Minister, Kang Do-Hyun in a press conference. A representative of Stage X, Seo Sang-won has refuted the claims, saying "we submitted a plan to the government and are proceeding accordingly, but they suddenly ignore it and say it is wrong. If I understand the government's argument, I will accept it, but I think it is unreasonable." It was only in February this year that Stage X emerged as the winner of a spectrum auction, placing a bid of $322.1 million for a license in the 28 GHz ('mmWave') band. The newly established company was due to launch services in 2025. (June 17, 2024) www.totaltele.com

Togo

In October 2021, the Togolese telecoms regulator carried out a study to determine the opinion of the population regarding the launch of mobile number portability. 95% of consumers were in favor of this idea. The Regulatory Authority for Electronic Communications and Posts of Togo launched mobile number portability recently. It was during an official ceremony chaired by Cina Lawson, the Minister of the Digital Economy and Digital Transformation. Togolese telecoms consumers will now be able to change mobile telephone operator while retaining their original numbers. " Their choice will now only be based on the quality of service offered by the operators or on the affordability of the tariff offers " explains ARCEP. It was in April 2023 that ARCEP started the technical implementation of mobile number portability in Togo, in accordance with the relative regulations adopted in July 2022 and approved by the government a month later. The initiative follows a market study carried out by the regulator in October 2021, which showed that 95% of Togolese consumers were in favor. The advent of portability should make it possible to introduce more competition into the Togolese mobile telephony market, for the benefit of consumers. According to ARCEP data for the 4th quarter of 2023, Moov Africa holds 59% of the 7.5 million mobile telephone subscribers, while Togo Cellular holds a market share of 41%.

(May 7, 2024) www.agenceecofin.com

United Kingdom

Ofcom has confirmed that it will revoke the current mobile operator licenses for the unpaired part of the 2100MHz band by 3rd April 2029. The licenses are held by EE, Three UK and Virgin Media 02. The unpaired part of the 2100MHz band was originally auctioned off in April 2000 to support the rollout of 3G mobile broadband networks. All four of the major MNOs currently use the paired radio spectrum in the 2100MHz band. But the slice of unpaired part of that same band is largely unused and the operators don't have any plans to deploy higher-power services in the spectrum. This is primarily due to the lack of a supportive ecosystem, as well as the need for a guard band against paired spectrum, which is used to reduce the risk of interference, and the limited bandwidth it offers. Ofcom is looking to ensure optimal use of the unpaired 2100MHz spectrum, which resulted in its decision at the end of 2023 to revoke all existing licenses. The regulator said that the spectrum that will be freed could be better used by the emergency services, railways or the utilities sector. Ofcom has formally given five years' notice to the operators that their licenses will be revoked. (June 20, 2024) www.commsbusiness.co.uk

The UK Competition and Markets Authority kicked-off a preliminary investigation into the potential ramifications of Hewlett Packard Enterprise's $14 billion acquisition of Juniper Networks. In a brief statement the regulator indicated it planned to look into whether the combination of the two companies would cut competition for goods and services in the UK market. It is working to a deadline of 14 August to decide whether to refer the deal for a deeper investigation and is inviting comments from interested parties until 3 July. Having announced the deal at the start of 2024, the bosses of the two companies extolled the benefits of the combination at MWC Barcelona 2024, highlighting deemed positives for customers in the telecommunications sector and beyond. During that session HPE president and CEO Antonio Neri and Juniper Networks chief Rami Rahim pointed to the potential of the joint company in providing solutions to deal with increased power and performance requirements from infrastructure in the AI era. In the company's earnings call held on 4 June Neri said the deal was currently going through the regulatory process and is expected to close in line with an originally communicated estimate of the end of 2024 or early 2025. In addition to getting through UK authorities, the deal will also have to be cleared by regulators in various other markets including the duo's home country of the US. (June 19, 2024) www.mobileworldlive.com

Ofcom set out its vision for how shared use of the upper 6 GHz spectrum band could enable both Wi-Fi and mobile services, while also continuing to serve the band's existing users as much as possible. As people use ever more data in their daily lives, there are increasing demands on radio spectrum. It is a finite resource, so we are considering innovative ways of ensuring that it is used as efficiently as possible. In July 2023, regulator consulted on an approach that would allow both Wi-Fi and mobile services to share spectrum in the upper 6 GHz band, known as 'hybrid sharing'. This would be the first time Wi-Fi and licensed mobile technologies share spectrum extensively. The paper outlines two possible approaches that could form part of a sharing framework:

1. Variable spectrum split. Both Wi-Fi and mobile would be able to use any part of the band where the other is not deployed, but have sections of it they are prioritized in. This could be done by each technology transmitting a specific signal so they can sense and avoid each other.
2. Indoor/outdoor split. Wi-Fi routers tend to be indoors to serve a particular household, whereas mobile base stations are mostly located outdoors to provide coverage to a wider area. The band could be managed to prioritize the indoor use of Wi-Fi while also prioritizing mobile use outdoors.

Regulator is working with industry to develop a hybrid sharing framework and the necessary coexistence solutions and also working with other European regulators, with a technical report on this topic is scheduled to be published in 2025. Earlier this month OFCOM welcomed a range of technology companies and European regulators to a workshop on this topic. The ideas discussed by the approximately 70 participants will help to further refine the thinking. The UK Government's Department for Science, Innovation and Technology is also funding several trials until March 2025 to explore new spectrum sharing techniques, which should provide insights for the work. Next year, Ofcom will set out further details on how it intend to make the upper 6GHz band available in the UK, and will consult before making any decisions on future use of the band. (May 21, 2024) www.ofcom.org.uk

Eight in 10 UK homes (80%) are now able to get gigabit-capable broadband, up from 73% the same time last year, according to new Ofcom data published. The figures from Ofcom's Connected Nations spring update also show that, as of January 2024, 62% of households can access full-fiber broadband, which delivers the internet to users through fiber-optic cables for a faster and more reliable service. It marks a significant increase from 48% year on year, as full-fiber technology is rapidly rolled out across the UK. There has been steady progress in reducing the number of premises unable to get decent broadband, defined by the Government as at least download speeds of 10 Mbit/s and upload speeds of 1 Mbit/s, which fell from 68,000 to 57,000 over the past year. Mobile coverage continues to improve as well, with 92% of UK premises now able to get a 5G signal outdoors from at least one mobile network operator, up from 82% in space of a year. (May 1, 2024) www.ofcom.org.uk

United States

FCC Chairwoman Jessica Rosenworcel announced the establishment of the Spectrum Steering Team, which will lead the FCC's efforts to develop and implement forward-looking spectrum policies and execute the National Spectrum Strategy. The Spectrum Steering Team brings together policy experts, economists, and engineers from across the Commission—including the Office of Economics and Analytics, Office of Engineering and Technology, Space Bureau, and Wireless Telecommunications Bureau—to drive spectrum policy and planning efforts that will ensure U.S. wireless leadership. "Demand for spectrum is growing at a breakneck pace as wireless technology expands and transforms so much in our economy and modern life, so we need to get creative with spectrum policies," said Chairwoman Rosenworcel. "The National Spectrum Strategy is a good start, and the Spectrum Steering Team will put its experience, talent and leadership to work helping to shape a bright wireless future." At its outset, the Spectrum Steering Team will coordinate the FCC's National Spectrum Strategy implementation efforts—including active participation in the in-depth study of 2,786 megahertz of spectrum for repurposing across key bands—and collaborate with the National Telecommunications and Information Administration, federal agencies, and stakeholders. The Spectrum Steering Team will be seeking input from stakeholders on how the FCC can best support the National Spectrum Strategy implementation efforts.

(May 14, 2024) www.fcc.gov

Vietnam

The information and communications infrastructure development planning in 2021-2030 approved in January 2024 focuses on digital infrastructure development. The telecommunications infrastructure is expected to transform digital infrastructure. The orientation is described in the plan to develop Vietnam telecommunications infrastructure in 2024-2025, recently released by MIC. According to the MIC's Authority of Telecommunications (AOT), telecommunications infrastructure must be prioritized. It must be one step ahead to stimulate national digital transformation, digital economy and digital society development. Businesses need to cooperate to develop telecommunications infrastructure based on the principle of common use and sharing. The telecommunications infrastructure needs to be programmed and implemented at the same time as transport infrastructure, electricity, lighting, underground work infrastructure, and other technical infrastructure. According to AOT, 5.4 million households out of 27 million households nationwide still cannot access fiber services. Meanwhile, 2,052 hamlets have electricity from the national grid, but still cannot access broadband fiber optic cable internet services st hamlets' culture houses. In addition, 230 hamlets have electricity from the national grid, but still are not covered by a mobile broadband. The newly released plan stipulates that an additional 2.7 million households will access fiber services in each year (2024 and 2025), raising the number of Vietnam's households capable of accessing fiber services to 90 percent and 100 percent, respectively. The other goals set for 2024 include having 684 more hamlets with electricity from national grid with access to fiber services reaching hamlets' culture houses; having 80 more hamlets with electricity from national grid to be covered by mobile broadband wave; negotiating with partners to have one or two more international submarine telecommunications cable routes. The goals for 2025 are higher, with 1,368 more hamlets having fiber services reaching hamlets' culture houses and 100 percent of culture houses having broadband internet. Another goal for 2025 is to have 150 hamlets covered with 4G broadband. www.

(May 27. 2024) www.mic.gov.vn

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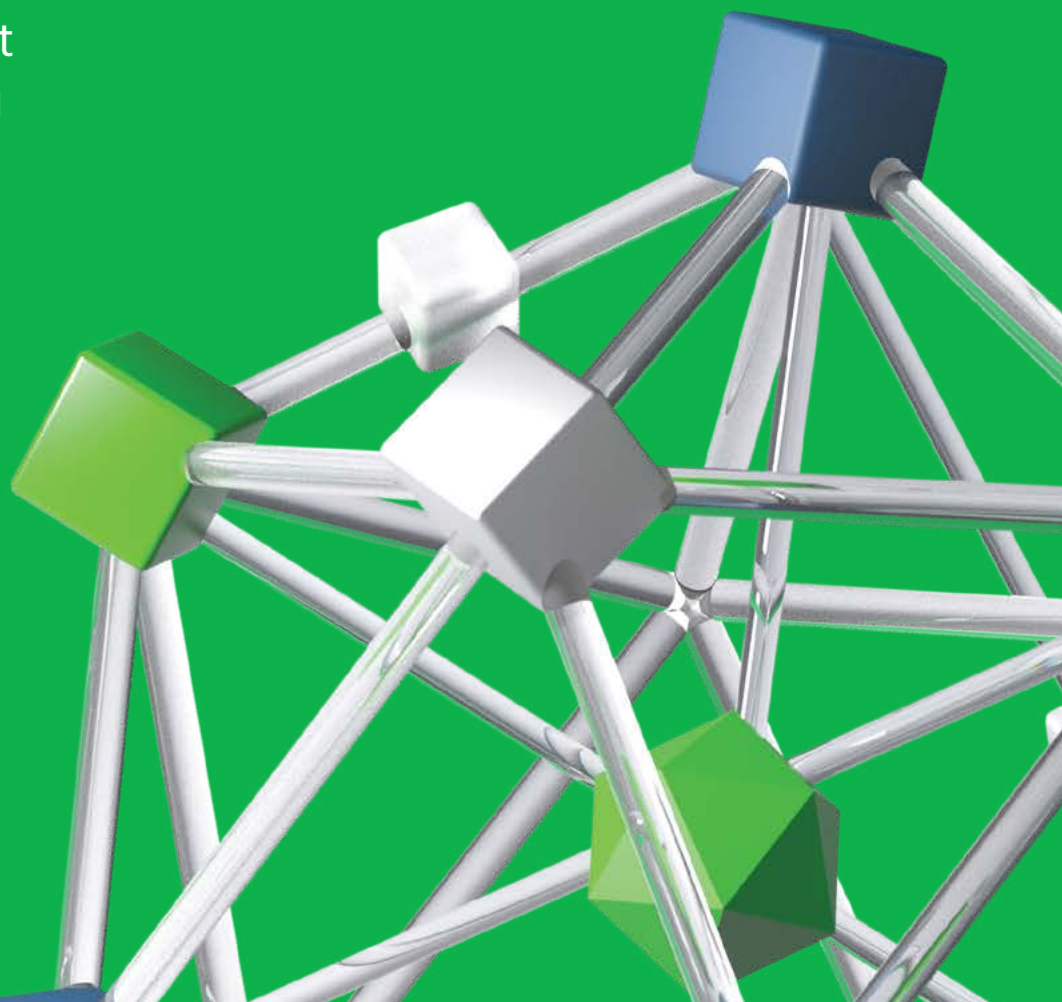

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