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SAMENA TRENDS

FOR SAMENA TELECOMMUNICATIONS COUNCIL'S MEMBERS

BUILDING DIGITAL ECONOMIES

THIS MONTH

DIGITAL TRANSFORMATION AND GLOBAL GOVERNANCE

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SAMENA TRENDS

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Digital Transformation and Global Governance

With advancements in fifth-generation fixed networks, and integration of AI and emerging technologies, evolution of Gigabit network technologies, and with worldwide focus on accelerating digital economic development, fulfilling ambitious national ICT visions, driving industrial and societal transformation, and rising understanding of sustainability imperatives, it is clear that a complex opportunity landscape is before us.

The multitude of opportunities are directly linked to our dependence on digital networks and technologies, and resulting digital transformation is truly empowering for end-users, enterprises, and governments alike. In the SA-ME-NA region and its neighboring regions, economies need to come at par with more digitally advanced economies. However, to achieve this, drastic steps are necessary to further broadband development and digital transformation. Moving towards "gigabit" infrastructure is an essential element in this journey. The required technology advancements and capabilities are readily available.

Furthermore, because digital infrastructure is fast becoming the backbone of our economies, societies, and even our governance structures, it is crucial that it remains protected and investment in its expansion continues to flow in, sustainably. Deployment of new technologies, for example, including 5G Core network transformation technologies or AI-driven automation of advanced broadband solutions and services, or interoperability of data required in fields, or fixed 5G-Advanced technologies in the optical network domain, to name a few, are already laying the foundation for the next decade of digital infrastructure.

The role of international cooperation-building efforts, such as the recently adopted Pact for the Future that includes a Global Digital Compact and a Declaration on Future Generations, or the activities of the ITU IAGDI-CRO, which most recently met during GSR-24, are going to be crucial in the years to come as UN Member States speed up their progress on the SDGs.

Connecting the dots correctly for a sustainable, investment-friendly, and empowering future is essential, as digital and space economies gain momentum and come closer in alignment, and as collaboration as well as responsible use of resources become ever more essential in the outer space as it already is on the ground.

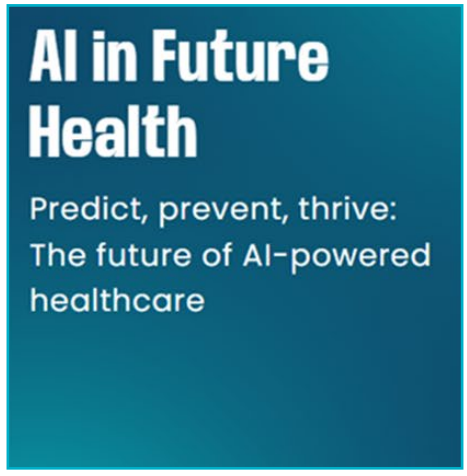
Bocar A. BA
Chief Executive Officer
& Board Member
SAMENA Telecommunications
Council

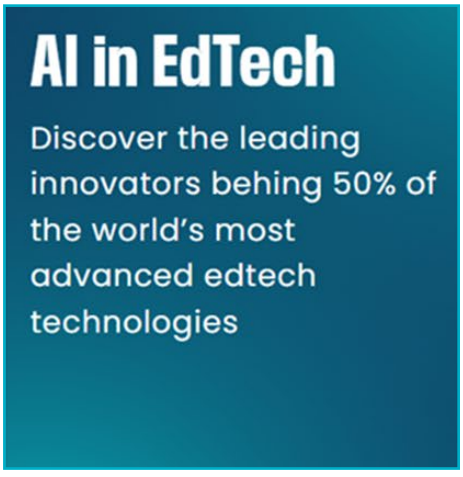
GITEX Global 2024 and the Future AI Economy

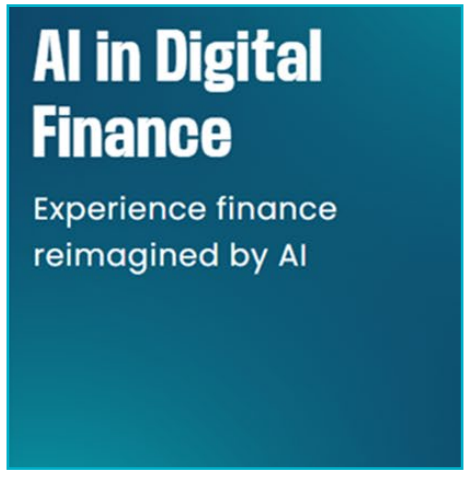
GITEX Global to Bring Forth Extensive AI Implementation Use-Cases

GITEX Global 2024, the world's largest technology exhibition platform, once again, will connect ICT industry stakeholders and digital ecosystem leaders, policymakers, regulators, innovators, investors, and consumers, focusing on the AI economy. Over 3,500 leading brands are expected to gather to showcase their AI solutions, ranging from ethical AI development to practical applications in finance, healthcare, and education. The discussions will focus on the implications of AI, including regulation, data privacy, and the evolving job market. With the rapid emergence of AI technologies, the need for ethical frameworks and guidelines has become dire. Moreover, driving beneficial use from AI, such as being demonstrated by the UAE's proactive approach of integrating AI into public services, tourism, energy, and education, is an area of utmost importance within the digital ecosystem. The region's AI initiatives, such as the Dubai Universal Blueprint for Artificial Intelligence, can make a tremendous impact in boosting productivity, predictability, and value-addition in the evolving economy of the region.

Digital Dubai announced that it will showcase Artificial Intelligence (AI) and the Dubai Government's cutting-edge solutions that are accelerating digital transformation and citizen-centric services. Over 45 government and private sector entities will participate, along with key partners supporting digital transformation efforts, highlighting Dubai's progress in digital innovation in line with its vision to become a leading smart city.







"GITEX Global is a remarkable annual event that highlights Dubai's ongoing progress toward a future defined by the latest advancements in information technology. By fostering collaboration, partnerships, and integration across various sectors and stakeholders, we are collectively working to bring this vision to life. With the rapid technological advancements we have seen globally, we are confident that the 2024 edition of this event will be exceptional. Dubai will make a significant impact, with numerous entities presenting pioneering innovations focused on transforming the city's digital landscape, fully aligned with the vision of our leadership and the objectives of the Dubai Economic Agenda D33."

Hamad Obaid Al Mansoori, Director-General of Digital Dubai

> *Aligned with the UAE National Strategy for Artificial Intelligence and with a clear vision to become the world leader in AI by 2031, the Emirates has invested in integrating AI into public services, energy, tourism, and education sectors.*

Growth in the use of AI is driven by a widespread acknowledgement amongst global leaders that AI-powered solutions are integral to driving enhanced productivity and higher growth across industries. As Thomas Pramotedham, CEO of Abu Dhabi-based AI enterprise Presight, recently told the GITEX Tech Waves podcast: "Today you'll see companies applying AI and AI evolving – in five, ten years' time, it will get smarter, and when it gets smarter, you'll get more efficiency and shorter routes to answers for difficult and complex questions. In return, that will be to the betterment of society and the world we live in."

Aligned with the UAE National Strategy for Artificial Intelligence and with a clear vision to become the world leader in AI by 2031, the Emirates has invested in integrating AI into public services, energy, tourism, and education sectors. In Dubai, particularly, initiatives such as the Dubai Universal Blueprint for Artificial Intelligence, are reflective of policy-level commitment to using AI for realizing a truly digital and sustainable future. Dubai's highly strategic annual plan aims to accelerate the adoption of AI applications, looking at achieving the targets of the Dubai Economic Agenda D33 by adding AED 100 billion, 27.2 billion dollars, yearly to the emirate's economy and boosting productivity by 50 per cent through the adoption of digital solutions.

Hamad Obaid Al Mansoori, Director-General of Digital Dubai, highlighted the importance of participating in GITEX Global 2024. He said, "GITEX Global is a remarkable annual event that highlights Dubai's ongoing progress toward a future defined by the latest advancements in information technology. By fostering collaboration, partnerships, and integration across various sectors and stakeholders, we are collectively working to bring this vision to life. With the rapid technological advancements we have seen globally, we are confident that the 2024 edition of this event will be exceptional. Dubai will make a significant impact, with numerous entities presenting pioneering innovations focused on transforming the city's digital landscape, fully aligned with the vision of our leadership and the objectives of the Dubai Economic Agenda D33."

GITEX Global in Dubai is the largest of the GITEX exhibitions. Located at the Dubai World Trade Centre, this annual event brings together thousands of exhibitors and attendees. It covers a wide range of sectors including AI, Blockchain, 5G, Cybersecurity and Smart Cities. GITEX Global is recognized for its cutting-edge innovations, enriching conferences and unparalleled networking opportunities.

First launched in 1981, GITEX has grown into a key platform for tech and business leaders to connect, share insights, and explore new opportunities. Initially focused on the Middle East, it has since expanded, drawing in technology enthusiasts, investors, and entrepreneurs from around the world. GITEX Global hosts seven key multi-tech sector events, including AI Everything, as well as the region's largest startup showcase Expand North Star Dubai, Fintech Surge, Future Blockchain Summit, Marketing Mania. In 2022, it launched two new events, Global DevSlam, which focuses on the coder-developer ecosystem, and X-VERSE, offering a curated immersive Web 3.0 experience. In 2023, it launched GITEX Impact, a leading platform for sustainability and innovation in climatetech. GITEX Global also organizes GITEX Africa in Morocco, GITEX Europe in Berlin, and GITEX Asia in Singapore. In 2025, it will organize the first edition of GITEX Nigeria.

GITEX Global 2024 features over 6,000 exhibitors and 1,800 speakers from 180 countries. The event will see participation from major technology firms and innovative startups in fields such as artificial intelligence, cybersecurity, mobility, and sustainable technology. This year's edition is anticipated to showcase the latest global trends in artificial intelligence and the digital economy, including advancements in cybersecurity solutions and government services, as well as efforts to eliminate bureaucracy and enhance user experiences.

Let's advance together digital transformation for all!
Let's Partner2Connect!

Gigabit Infrastructure

SAMENA ACCELERATOR on 10 Gigabit Digital Infrastructure Development in the GCC and Central Asia: An Imperative in Regional Advancement

SAMENA (South Asia-Middle East-North Africa) Telecommunications' SAMENA ACCELERATOR on ***10 Gigabit digital infrastructure*** will be held on October 17th at the One & Only Mirage in Dubai, UAE.

In collaboration with its valued member, Huawei Technologies, the Council will organize the 2024 edition of its SAMENA ACCELERATOR to continue the dialogue initialized in the 2023 edition of the 10 Gigabit ACCELERATOR, which established a compelling case for ultra-broadband or "10Giga" network development by utilizing advancements in Fiber and IPv6 innovations. The 2024 edition will delve into deepening consensus on accelerating 10 Giga network development and exploring future-oriented broadband infrastructure upgrades, enhancing user experiences, enabling digitalization of various industries, and, as an ultimate goal, accelerating the development of the digital economy in the Middle East and Central Asia.

SAMENA Council recognizes that with advancements in fifth-generation fixed networks, and integration of AI and emerging technologies, Gigabit networks can significantly accelerate digital economic development, fulfil ambitious national ICT visions, and drive industrial and societal transformation, particularly in the GCC markets, where there is a need to enhance broadband speeds and accelerate optical-fiber coverage. Policy-centric and technology-centric discussions will spotlight 10 Gigabit network development (10Giga), Artificial Intelligence (AI), and Fixed 5G-Advanced (F5G-A).

"SAMENA Council's partnership with Huawei is a strategic step towards fostering digital innovation in the region," said Bocar BA, CEO & Board Member of SAMENA Council. "Our aim is to continue the dialogue and experience exchange regarding the "10Giga" concept voiced in 2023. Given new policies on digital development and emergence of technologies, especially Artificial Intelligence, it is imperative to inspire Fiber growth in Central Asia mirroring the progress made in the GCC. We need to enhance 10Giga transition, while adopting speedier deployment methods and addressing issues in landlocked countries. It is crucial to advance the Digital Economies of the ME & CA region, as a whole."

> *Policy-centric and technology-centric discussions will spotlight 10 Gigabit network development (10Giga), Artificial Intelligence (AI), and Fixed 5G-Advanced (F5G-A)*

SAMENA Council observes that the region, particularly, and neighboring regions, generally, need to come at par with more digitally advanced economies. However, to achieve this, drastic steps are necessary to further broadband development and IPv6 transformation. Moving towards "gigabit" infrastructure is an essential element in such steps. Technology advancements and capabilities, such as pre-connection, FTTR, 10G-PON, OTN for digital hub, converged bearer network ranging from 100G to 800G are readily available. Moreover, with rising interest in Artificial Intelligence and its use in analyzing optical-fiber, service quality, performance assessment, bandwidth capacity management, and optimization of network resources, it is important to understand effective utilization and implications of allied technologies on regional broadband development.

Space Sustainability

SAMENA Council Leads Space Sustainability Dialogue and Contextualizes WRC-27

In September, SAMENA Telecommunications Council, at the Mohammed Bin Rashid Space Centre (MBRSC) headquarter, led a dialogue on space sustainability, organized by the World Space Sustainability Association (WSSA). Held as Space Sustainability Leaders Forum, the roundtable discussion led by SAMENA Council focused on accelerating global co-ordination on space sustainability; setting priorities for collaboration and progress for the space ecosystem; and identifying opportunities and imperatives for space stakeholders.

The space-sustainability dialogue held at the MBRSC headquarter aligned well with new expectations set forth by the United Nations' recently adopted Pact for the Future, with sustainable development, among other focus areas, at its heart. international peace and security; science and technology; youth and future generations and transforming global governance. SAMENA Council highlighted that with rapid advancements, emerging commercial interests, and increasing global recognition of space as an essential domain for security, economic growth, and sustainability, a set of differing, and, at times, conflicting priorities have emerged. Nonetheless, these differing priorities give room to a diverse set of opportunities as well, especially for innovation and new collaborations in digital economy and space economy. Such opportunities need to be explored and for making collective progress in the complex space landscape.

SAMENA Council, with its membership comprising both terrestrial and space segments, observes that space economy, driven by both space-exploration initiatives, cost-effective satellite production and launching, and constellation-based business models, will face a dramatic increase in the next decade. during this time frame, several critical challenges will surface, ranging from signal interference to orbital slot allocations; fuel and light

WRC-27 Preliminary Agenda Items

On the basis of proposals from Administrations and the Report of the Conference Preparatory Meeting, and taking account of the results of WRC-23, to consider and take appropriate action in respect of the following items:

- To consider, in accordance with Resolution 663 (WRC 19), additional spectrum allocations to the radiolocation service on a co-primary basis in the frequency band 231.5-275 GHz and an identification for radiolocation applications in frequency bands in the frequency range 275-700 GHz for millimetre and sub-millimetre wave imaging systems;
- To study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 37.5-39.5 GHz (space-to-Earth), 40.5-42.5 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space) by aeronautical and maritime earth stations in motion communicating with geostationary space stations in the fixed-satellite service, in accordance with Resolution 176 (WRC 19);
- To consider the allocation of all or part of the frequency band [43.5-45.5 GHz] to the fixed-satellite service, in accordance with Resolution 177 (WRC 19);
- The introduction of power flux-density and equivalent isotropically radiated power limits in Article 21 for the frequency bands 71-76 GHz and 81-86 GHz in accordance with Resolution 775 (WRC 19);
- The conditions for the use of the frequency bands 71-76 GHz and 81-86 GHz by stations in the satellite services to ensure compatibility with passive services in accordance with Resolution 776 (WRC 19);
- To consider regulatory provisions for appropriate recognition of space weather sensors and their protection in the Radio Regulations, taking into account the results of ITU Radiocommunication Sector studies reported to WRC 23 under agenda item 9.1 and its corresponding Resolution 657 (Rev. WRC 19);
- To consider the development of regulatory provisions for non-geostationary fixed-satellite system feeder

pollution to debris management; and from solar flares to in-space collisions.

"One of the key areas to address within the larger space sustainability area, is collaboration among all stakeholders and to streamline better international governance approaches to ensure space and human activities in space remain sustainable. This is one of the reasons why this dialogue organized by WSSA and hosted by MBRSC was very important. A diverse group of space-sector stakeholders not only delved into space sustainability issues of importance specifically to space ecosystem players, but also issues and matters pertaining to WRC-27, such as those relating to spectrum, fixed-satellite and broadcasting-satellites, space-to-Earth and Earth-to-space communication", stated Bocar BA, CEO & Board Member of SAMENA Council, who steered the discussions at the WSSA Forum.

For WRC-27, new studies for mobile in the bands 4400-4800 MHz; 7125-8400 MHz and 14.8-15.35 GHz, among other areas, are deemed important agenda items. The ICT Industry, over the next five years, requires more harmonized capacity for mobile services and the identification of these bands for International Mobile Telecommunication (IMT) by WRC-27 would provide an important resource for mobile connectivity and service evolution. Having timely discussions relating to predictable access to spectrum, such as during the WSSA Leaders Forum led by SAMENA Council, is expected to help Operators and Technology Providers attain visibility and facilitate informed decision-making regarding investment, spectrum utilization, digital experience, and innovation in digital services and applications.

"Emerging Space Economy has intricate dimensions, and it is imperative to account for them. At the WSSA's Space Sustainability Leaders Forum 2024, held at the MBRSC headquarter, it was a pleasure to moderate the discussion, centered on understanding rapid advancements, emerging commercial interests, and increasing global recognition of space as an essential domain for security, economic growth, terrestrial and space sector collaboration, and sustainability, at large", added BA.

links in the frequency bands 71-76 GHz (space-to-Earth and proposed new Earth-to-space) and 81-86 GHz (Earth-to-space), in accordance with Resolution 178 (WRC 19);

- To study the technical and operational matters, and regulatory provisions, for space-to-space links in the frequency bands [1 525-1 544 MHz], [1 545-1 559 MHz], [1 610-1 645.5 MHz], [1 646.5 1 660.5 MHz] and [2 483.5-2 500 MHz] among non-geostationary and geostationary satellites operating in the mobile-satellite service, in accordance with Resolution 249 (WRC 19);
- to consider possible additional spectrum allocations to the mobile service in the frequency band 1 300-1 350 MHz to facilitate the future development of mobile-service applications, in accordance with Resolution 250 (WRC 19);
- to consider improving the utilization of the VHF maritime frequencies in Appendix 18, in accordance with Resolution 363 (WRC 19);
- to consider a new Earth exploration-satellite service (Earth-to-space) allocation in the frequency band 22.55-23.15 GHz, in accordance with Resolution 664 (WRC 19);
- to consider the use of existing International Mobile Telecommunications (IMT) identifications in the frequency range 694-960 MHz, by consideration of the possible removal of the limitation regarding aeronautical mobile in IMT for the use of IMT user equipment by non-safety applications, where appropriate, in accordance with Resolution 251 (WRC-19);
- to consider a possible worldwide allocation to the mobile-satellite service for the future development of narrowband mobile-satellite systems in frequency bands within the frequency range [1.5-5 GHz], in accordance with Resolution 248 (WRC-19).

5G Core Transformation

SAMENA Council Advocates Advancing Business and ICT Visions through Regulatory Enablement of 5G Standalone Networks; Highlights a Universal Financing Framework for Broadband Development

SAMENA Council CEO & Board Member, Bocar BA delivered a welcome address at the 5G Core Summit, organized by Informa Tech in collaboration with Huawei, and drew upon the Council's observations that digital transformation, technology integration, and economic diversification are some of the key drivers of new investments in advanced mobile networks. The Summit focused on Intelligent Core trends, Network Resilience and Business Models, Operations & Maintenance, among other areas of importance to mobile operators.

> *"5G is a glaring reality; a door to new possibilities, and new ways to collaborate with both existing and emerging ecosystem partner. It thus demands new advancements and progress at the Core level. Without 5G Core, Operators, and the private sector, at large, and across all industry segments, simply cannot benefit from 5G's major and real capabilities."*
>
> ***Bocar BA, CEO & Board Member of SAMENA Council***

In his address, Bocar BA voiced the case for drawing true value from 5G investments. BA remarked, "5G is a glaring reality; a door to new possibilities, and new ways to collaborate with both existing and emerging ecosystem partner. It thus demands new advancements and progress at the Core level. Without 5G Core, Operators, and the private sector, at large, and across all industry segments, simply cannot benefit from 5G's major and real capabilities."

Because 5G Core network functions are completely software-based and are designed to be cloud-native, allowing higher deployment agility and flexibility on multiple cloud infrastructures, a strong case exists for achieving 5G deployment flexibility, operational efficiency, adopting the cloud-native mindset for new applications, and thus fast-pacing digital-service innovation across the SA-ME-NA region and neighboring regions, such as Central Asia. However, it is also important that further delays in capitalizing on advanced network features, new digital services, and benefitting from 5G's new revenue-generation streams be prevented. So far, such delays have primarily been due to the fact that most networks have not yet implemented, or have not been able to implement, advanced, intelligent 5G Core.

Through BA's address, SAMENA Council promoted the need for opening and advancing the 5G Core, transitioning to cloud-native 5G standalone, and ensuring sustainable investment and regulatory agility. BA also deemed it critical to adopt a universal financing framework for broadband development, which SAMENA Council has helped create as a part of the work done by one of the UN Broadband Commission's leading working groups on 21st century financing and funding. "New methods and new financial instruments have been brought to surface, and SAMENA Council is actively pursuing realization of its proposition on this frontier with relevant stakeholders, including with renowned financial institutions and investment groups", BA stated.

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Progressive digital-sector regulatory environment is fundamental to achieving scale in 5G investments and, particularly, in creating 5G-Standalone networks. Collectively, the industry should aim to eradicate unpredictability, enable cost-cutting through reduced licensing fees and reduced taxation or levies, align better with global efforts and trends, and foster the creation of a level-playing field for all players within the digital communications space.

Investment in 5G Core

Most of the incremental value in the 5G-Advanced era will be delivered by core network enhancements.

Investing in 5G core for Standalone (SA) architecture is critical for Operators aiming to fully monetize their networks. Multiple challenges as well as opportunities exist in 5.5G deployments, and there is a need to showcase the future of voice communication in the 5.5G era and the groundbreaking solutions driving innovation. AI solutions could help overcome various network-level and service-level hurdles. The transformative impact of Level 4 Autonomous Driving Networks on reducing operational costs and boosting network efficiency are integral. 5G has emerged as a key driver, with 5GSA, voice, telco cloud, autonomous networks, and 5.5G core being among key areas of importance in driving value out of 5G.

In 2023, SAMENA Council and Leading Stakeholders Embarked on a Groundbreaking Universal Broadband Financing Initiative

SAMENA Telecommunications Council, in partnership with esteemed members of the Advocacy Taskforce of the former UN Broadband Commission Working Group on 21st Century Financing Models to Bridge the Connectivity Gap, including Smart Africa and Digicel, chaired a pivotal Broadband Development Financing Meeting, held at Vodafone Global Headquarters in London on 27th November 2023. Attended by more than 30 distinguished delegates from various sectors, the London meeting marked a significant milestone in global efforts to bridge the digital divide and bring connectivity to the unconnected, including in the SA-ME-NA region and neighboring regions.

The meeting's central achievement was the establishment of the foundational elements for a new Universal Broadband Financing Framework. This groundbreaking initiative is set to commence with implementations in Nigeria and Rwanda, underscoring a commitment to enhancing digital inclusion through broadband connectivity, thus setting a precedent for future broadband infrastructure expansion across other markets.

The meeting was a testament to the collective resolve to address prevailing connectivity gaps. It brought together ICT ministers, leaders from the ICT industry, funding groups, Telecom Operators, financial institutions, and regulatory bodies, showcasing a unified front in tackling digital divides still prevailing around the world.

SAMENA Council believes that this new initiative will have direct impact on broadband affordability, sustainable investments in the digital infrastructure and innovation, and would help Telecom Operators and other stakeholders achieve new milestones in collaboration. SAMENA Council also extends heartfelt gratitude to all attendees for their valuable contributions and an unwavering commitment to this initiative. Together, the participants have set in motion a transformative endeavor poised to make significant strides in connecting the unconnected, making progress on the SDGs, and fostering a more digitally-inclusive world.

Supporting Regulatory Authorities

Iraq Discusses 5G and Satellite Internet with SAMENA Council CEO at Future Summit in New York

Mr. Ali Al-Moayyed, Chairman of Iraq's Communications and Media Commission, discussed the future of 5G and satellite internet in Iraq with Bocar BA, the CEO of the SAMENA Council, in New York. The SAMENA Council is one of the leading global alliances in the technology sector, leading a coalition of telecommunications companies in South Asia, the Middle East, and North Africa. Al-Moayed met with Ba on the sidelines of the Future Summit held in New York, where they addressed several technical aspects related to developing the telecommunications sector in Iraq. A statement from the commission noted that the meeting primarily focused on the mechanisms for providing 5G services in Iraq, emphasizing "the importance of adopting the latest technological practices and infrastructure to enhance connection speed, reduce response times, and support the digital economy in line with global technological developments." The discussion also covered satellite internet services, with both sides examining global best practices for licensing these services, highlighting the benefits and drawbacks of using this technology, and studying potential challenges such as interference with the terrestrial frequency spectrum and its impact on the environment and users. To enhance the telecommunications sector in Iraq, Al-Moayyed highlighted "the need for support through global and regional workshops and conferences focused on innovations in telecommunications and information technology, including artificial intelligence, big data, and advanced infrastructure."

> *"The importance of adopting the latest technological practices and infrastructure to enhance connection speed, reduce response times, and support the digital economy in line with global technological developments."*

ITU Global Symposium for Regulators (GSR-24)

SAMENA Council CEO Bocar BA Highlights Network Resilience and Inclusive Connectivity at ITU GSR-24

At this year's ITU Global Symposium for Regulators (GSR-24) High-Level Segment titled "Maximizing Digital Opportunities for Impact," SAMENA Telecommunications Council, represented by CEO Bocar BA, emphasized the critical importance of network resilience and inclusive connectivity. The session brought together ministers, regulators, and industry leaders to explore how to adjust policies and regulations to meet current digital needs while preparing for future advancements.

In his address, Bocar BA highlighted the necessity of ensuring network resilience through robust infrastructure, comprehensive disaster recovery plans, and advanced technologies such as AI and machine learning. He stressed that proactive risk management and inclusive connectivity initiatives are essential, particularly in rural and underserved areas. Ba underscored the need for adaptable and technologically neutral regulatory frameworks to foster innovation and investment, calling for public-private partnerships and broadening the base for network investment.

BA also addressed how to adjust the policy and regulatory pendulum to address today's digital needs while preparing for tomorrow. He briefly introduced the SAMENA Council's advocacy for a Universal Broadband Financing Framework, designed to secure sustainable funding for network resilience and continuous connectivity. This framework aims to draw contributions from a diverse range of stakeholders, including global digital platforms, content providers, financial institutions, development banks, and governments.

In conclusion, Bocar BA reiterated the SAMENA Council's commitment to collaborating with regulators and industry players to achieve universal connectivity and meaningful digital transformation. He expressed gratitude to the ITU for organizing the event and providing a platform for impactful discussions. "The

power to transform our global society into a fully inclusive digital world lies not just in building infrastructure but in how we fund and sustain these developments," BA stated.

> *"The power to transform our global society into a fully inclusive digital world lies not just in building infrastructure but in how we fund and sustain these developments"*
>
> ***Bocar BA, CEO & Board Member of SAMENA Council***

SAMENA Council Announces Outcome of ITU IAGDI-CRO Meeting at GSR-24

The SAMENA Telecommunications Council announced the successful conclusion of the Industry Advisory Group for Development Issues and Private Sector Chief Regulatory Officers' (IAGDI-CRO) meeting, which took place during the ITU Global Symposium for Regulators (GSR-24) in Kampala, Uganda. The meeting, chaired by SAMENA Council CEO Bocar BA, brought together industry leaders, regulators, and key stakeholders to discuss the pressing challenges and opportunities in achieving universal connectivity.

The session navigated through the complex regulatory and business landscapes shaping the digital era, emphasizing the urgent need for collective action to achieve 100% connectivity. Recognizing that over 2.6 billion people worldwide remain unconnected to the internet, the meeting focused on digital infrastructure development, regulation of future technologies, and strategies to foster inclusive, sustainable connectivity.

Industry participants underscored the necessity of intensified collaboration between terrestrial and non-terrestrial service providers and regulators to address the coverage gap and adapt regulatory frameworks. Key recommendations included:

- Market Access and Investment: Establishing fair market access conditions, ensuring spectral efficiency, reducing sector-specific fees and taxes, and streamlining licensing regimes to enable predictable and sustainable network investment.
- Rural Connectivity and Digital Inclusion: Highlighting the need for innovative financing models, public sector funding, and the reform of Universal Service Funds (USF) to bridge the digital divide.
- Satellite Direct-to-Device (D2D) Services: Addressing regulatory challenges

> *Bocar BA highlighted the necessity of ensuring network resilience through robust infrastructure, comprehensive disaster recovery plans, and advanced technologies such as AI and machine learning. He stressed that proactive risk management and inclusive connectivity initiatives are essential, particularly in rural and underserved areas. Ba underscored the need for adaptable and technologically neutral regulatory frameworks to foster innovation and investment, calling for public-private partnerships and broadening the base for network investment.*

for satellite D2D services, including spectrum coordination and licensing, to enhance connectivity in underserved areas.

- Regulatory Environment: Creating a predictable and transparent regulatory environment that promotes competition, innovation, and long-term investment in transformative technologies.
- Public-Private Partnerships: Promoting collaboration between public and private sectors to accelerate deployment in underserved areas and implement regulatory "sandboxes" for testing new regulations.
- Support for AI and Emerging Technologies: Emphasizing the need for dedicated institutional capacities for continuous monitoring and guidance on AI, engaging a broad range of stakeholders, and collaborating on global standards.

The meeting reaffirmed the private sector's commitment to supporting governments and regulators in achieving common goals. Participants agreed to play a more active role in digital development, promote ITU-D Sector membership, and advance national digital transformation agendas.

Transforming Global Governance

Pact for the Future to Transform Global Governance Adopted by the United Nations

World leaders have now adopted a Pact for the Future that includes a Global Digital Compact and a Declaration on Future Generations. This Pact is the culmination of an inclusive, years-long process to adapt international cooperation to the realities of today and the challenges of tomorrow. The most wide-ranging international agreement in many years, covering entirely new areas as well as issues on which agreement has not been possible in decades, the Pact aims above all to ensure that international institutions can deliver in the face of a world that has changed dramatically since they were created. As the Secretary-General has said: "We cannot create a future fit for our grandchildren with a system built by our grandparents."

> *"The Pact for the Future, the Global Digital Compact, and the Declaration on Future Generations open the door to new opportunities and untapped possibilities," said the Secretary-General during his remarks at the opening of the Summit of the Future. The President of the General Assembly noted that the Pact would "lay the foundations for a sustainable, just, and peaceful global order – for all peoples and nations."*

Overall, the agreement of the Pact is a strong statement of countries' commitment to the United Nations, the international system and international law. Leaders set out a clear vision of an international system that can deliver on its promises, is more representative of today's world, and draws on the energy and expertise of governments, civil society and other key partners.

"The Pact for the Future, the Global Digital Compact, and the Declaration on Future Generations open the door to new opportunities and untapped possibilities," said the Secretary-General during his remarks at the opening of the Summit of the Future. The President of the General Assembly noted that the Pact would "lay the foundations for a sustainable, just, and peaceful global order – for all peoples and nations."

The Pact covers a broad range of issues including peace and security, sustainable development, climate change, digital cooperation, human rights, gender, youth and future generations, and the transformation of global governance.

Key Deliverables in the Pact Include:

- The most progressive and concrete commitment to Security Council reform since the 1960s, with plans to improve the effectiveness and representativeness of the Council, including by redressing the historical under-representation of Africa as a priority.
- The first multilateral recommitment to nuclear disarmament in more than a decade, with a clear commitment to the goal of totally eliminating nuclear weapons.
- Agreement to strengthen international frameworks that govern outer space, including a clear commitment to prevent an arms race in outer space and the need to ensure all countries can benefit from the safe and sustainable exploration of outer space.
- Steps to avoid the weaponization and misuse of new technologies, such as lethal autonomous weapons, and affirmation that the laws of war should apply to many of these new technologies.

On Sustainable Development, Climate and Financing for Development

- The entire Pact is designed to turbo-charge implementation of the Sustainable Development Goals.
- The most detailed agreement ever at the United Nations on the need for reform of the international financial architecture so that it better represents and serves developing countries, including:
  - Giving developing countries a greater say in how decisions are taken at international financial institutions;
  - Mobilizing more financing from multilateral development banks to help developing countries meet their development needs;
  - Reviewing the sovereign debt architecture to ensure that developing countries can borrow sustainably to invest in their future, with the International Monetary Fund (IMF), UN, G20 and other key players working together;
  - Strengthening the global financial safety net to protect the poorest in the event of financial and economic shocks, through concrete actions by the IMF and Member States;
  - Accelerating measures to address the challenge of climate change, including through delivering more finance to help countries adapt to climate change and invest in renewable energy.
  - Improving how we measure human progress, going beyond GDP to capturing human and planetary wellbeing and sustainability.
- A commitment to consider ways to introduce a global minimum level of taxation on high-net-worth individuals.
- On climate change, confirmation of the need to keep global temperature rise to 1.5°C above pre-industrial levels and to transition away from fossil fuels in energy systems to achieve net-zero emissions by 2050.

On Digital Cooperation

- The Global Digital Compact, annexed to the Pact, is the first comprehensive global framework for digital cooperation and AI governance.
- At the heart of the Compact is a commitment to design, use and govern technology for the benefit of all. This includes commitments by world leaders to:
  - Connect all people, schools and hospitals to the Internet;
  - Anchor digital cooperation in human rights and international law;
  - Make the online space safe for all, especially children, through actions by governments, tech companies and social media;
  - Govern artificial intelligence (AI), with a road map that includes an International Scientific Panel and a Global Policy Dialogue on AI;
  - Make data more open and accessible, with agreements on open-source data, models and standards;
  - This is also the first global commitment to data governance, placing it on the UN agenda and requiring countries to take concrete actions by 2030.

Youth and Future Generations

- The first-ever Declaration on Future Generations, with concrete steps to take account of future generations in our decision-making, including a possible envoy for future generations.
- A commitment to more meaningful opportunities for young people to participate in the decisions that shape their lives, especially at the global level.

Human Rights and Gender

- A strengthening of our work on human rights, gender equality and the empowerment of women.
- A clear call on the need to protect human rights defenders.
- Strong signals on the importance of engagement of other stakeholders in global governance, including local and regional governments, civil society, private sector and others.

There are provisions across the Pact and its annexes for follow-up action, to ensure that the commitments made are implemented.

Digitalization in Central Asia

SAMENA Council Highlights Digital Inclusion & Transformation Imperatives During the Asia-Pacific Ministerial Conference; Lauds Kazakhstan's Digital Advancements

SAMENA Council CEO, Bocar BA, made thought contributions during the Asia-Pacific Ministerial Conference on "Digital Inclusion and Transformation" held in Astana, Kazakhstan. The event, which brought together prominent policymakers, industry leaders, and international experts, focused on exploring the current achievements and future impact of digital technologies across the Asia-Pacific region. In his intervention, Ba praised Kazakhstan's remarkable progress in digital transformation, positioning the country as a leader in the CIS region. "Kazakhstan's digital journey, particularly through the 'Digital Kazakhstan' initiative, sets a benchmark not only for the CIS but also for countries across the globe aiming to harness technology for socio-economic development," Mr. Ba stated. Recognizing Kazakhstan's impressive internet penetration of 92.3% and its strides in 4G and 5G connectivity, Ba acknowledged the government's vision of achieving universal high-quality internet access by 2025. "Kazakhstan's commitment to ensuring 100% population coverage and fostering a thriving digital ecosystem is commendable, and something SAMENA Council is observing very closely. This includes the development of e-government services, digital literacy, and support for digital industries through innovation hubs like the Astana Hub," he added.

Driving Digital Inclusion and Economic Growth

Mr. Ba emphasized the transformative power of digital inclusion in driving economic growth and social development. He discussed how Kazakhstan's improved broadband access has accelerated progress in sectors such as healthcare, education, and business. "From e-learning platforms to remote healthcare services, the digital transformation is touching the lives of people across Kazakhstan. However, we must continue to focus on closing the digital divide, particularly for rural and underserved communities," said Ba. He further pointed to Kazakhstan's leadership in the CIS region and its proactive adoption of AI, 5G, and satellite broadband technologies, positioning the country as a regional digital hub. "Kazakhstan's push for next-generation technologies reflects its readiness to lead the region in innovation and digital infrastructure development," he added

> *"From e-learning platforms to remote healthcare services, digital transformation is touching the lives of people across Kazakhstan. However, we must continue to focus on closing the digital divide, particularly for rural and underserved communities,"*

SAMENA Council's Commitment to Universal Broadband

During the ITU WSIS Side Event at the same conference, Bocar BA reiterated SAMENA Council's commitment to supporting universal broadband access, stressing the importance of strategic partnerships in achieving global digital inclusion goals. He highlighted SAMENA Council's collaboration with the ITU and its active role in promoting innovative funding and financing models for broadband infrastructure, particularly through its co-chairmanship of the UN Broadband Commission's Working Group on 21st Century Financing Models. "Achieving digital inclusion requires collective effort. The work we are doing at SAMENA Council to broaden the financial base for broadband development is vital for ensuring that the benefits of digital transformation reach everyone, especially in underserved regions," Ba concluded.

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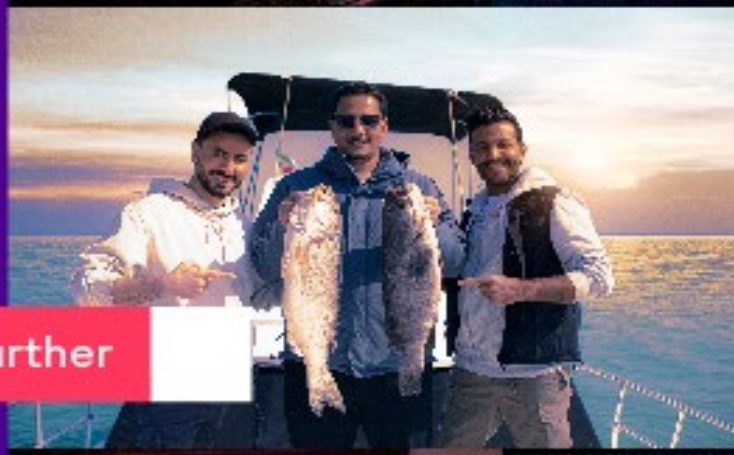
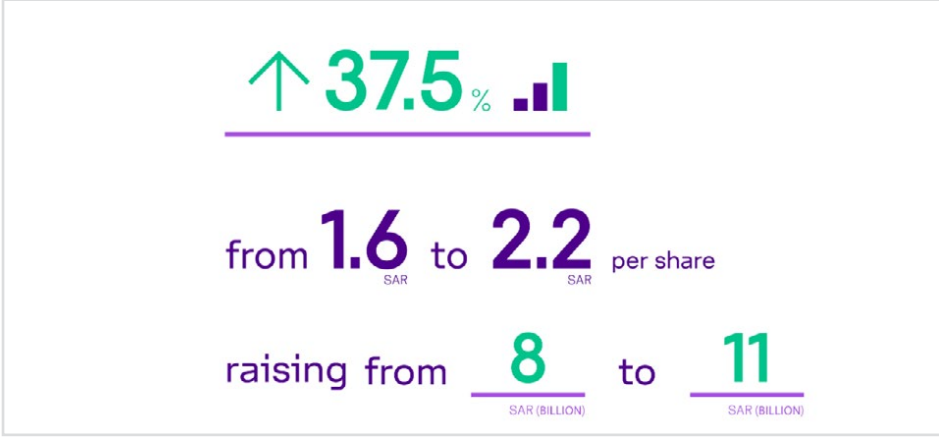


stc

MEMBERS NEWS

stc Group Board of Directors Recommends Raising Annual Dividend Distributions from SAR 1.6 to SAR 2.2

The stc Group's Board of Directors has recommended increasing the annual cash dividends by 37.5%, from SAR 1.6 to SAR 2.2 per share annually, raising the total amount from SAR 8 billion to SAR 11 billion over the next three years. The dividend distribution policy will be presented to stc's General Assembly at its next meeting, the date of which will be announced later. This recommendation is based on the group's solid financial position and exceptional operational performance, supported by stc's strategy focused on continued expansion and growth.



Comprehensive Ethics Audit: Advancing Our Commitment to Ethics and Integrity

stc Group is excited to begin a new chapter in our dedication to ethical merit. To enhance our compliance and ethics program, we have engaged an external audit firm to conduct a comprehensive third-party ethics audit for all operations, on a Group level. Moving forward, we will continue to carry out these audits every three years. The primary goal of this third party ethics audit is to evaluate the design, implementation, and effectiveness of stc Group's ethics-related objectives, anti-corruption and business ethics programs, and employee training at the group level. Auditors will conduct a comprehensive assessment, benchmarking our current compliance and ethics initiatives against the standards of an effective program. This review will cover several key areas, including written standards, policies, governance, program structure, training, risk management, third-party relationships, and enforcement mechanisms. The audit will culminate in a detailed report, followed by a discussion with the stc Group executive management team and presentation of documentation to the Board Audit Committee to review identified gaps and actionable recommendations for enhancement. stc Group, Chief of Ethics, Group Regulatory and Compliance, Mr Amir Algibreen: "This audit underscores our dedication to fostering a culture of integrity and accountability. We believe that this comprehensive ethics audit will not only enhance our compliance and ethics program but also reinforce our commitment to ethical leadership and transparency. With our international offices and numerous subsidiaries, we have a profound responsibility to uphold the highest standards of integrity and ethical conduct." stc Group, Chief of Strategy, Mr Abdullah A. Alkanhl: "By rigorously evaluating our ethical framework on, anti-corruption and business ethics on Group level, we aim to reinforce our position as a responsible organization, dedicated to making a positive impact on both our industry and the communities we serve. We are excited about the opportunity to refine our practices and continue our journey towards excellence." stc Group remains committed to maintaining the highest standards of integrity, and this audit marks an important milestone in the ongoing efforts to strengthen the compliance and ethics program, ensuring alignment with global best practices and ethical leadership.

stc Group Paves the Way for Sustainable Transformation

stc Group, a leading digital enabler, launched its fifth annual sustainability report, continuing its commitment to driving forward sustainable transformation through environmental, social, and governance (ESG) excellence. The initiatives outlined in stc Group's 2023 Sustainability Report contribute to sustainable transformation and a future where businesses are the catalysts for protecting people and the planet. As part of the updated sustainability framework, the Group identified three core pillars in 2023:

Environmental Performance & Climate

stc Group aspires to be a global leader in environmental stewardship and has made significant progress toward its commitment to achieving net zero by 2050. This commitment has been validated and approved by the Science Based Targets Initiative (SBTi) and is supported by several environmental performance programs. Key initiatives and programs include the installation of 7 operational solar powered sites at headquarters, as well as the incorporation of energy efficiency and sustainability measures for data centers and towers. Additionally, a solar pilot project launched for 18 sites across the Kingdom. The Group has also implemented advanced power-saving technologies using artificial intelligence (AI), resulting in a 13% reduction in energy consumption across stc's 4G and 5G networks.

Human Capital Development Through Technological Innovation

Fundamental to stc Group's sustainability practices are initiatives that advance human capital by creating opportunities for growth that bridge societal divides through technological innovation. These social investment initiatives enrich the lives of customers, empower stc Group employees, and contribute to community development in impactful ways.

- Enriching the Lives of Customers: Through its trade-in program, stc Group ensures customers are offered affordable and sustainable devices.
- Empowering stc Group Employees:
- In 2023, women comprised 64% of the Group's Talent Incubation Program hires and held 18% of our Board seats, contributing to a 31.6% overall hiring rate for women.
- The Group also increased the number of employees with disabilities by 36.8% from 2022. As an equal opportunity employer, stc provides an inclusive work environment that attracts, develops, and retains the best and most talented individuals from all backgrounds.
- Contributing to Community Development: Investment and development in communities at stc Group is paramount, and in 2023 focused across six key areas: Education, Environment, Sports & Health, Entrepreneurship, Community Development, and Youth Empowerment. One key program in 2023 supported 446 non-profits through a Technical Enablement Program (TEP), supporting operational efficiency and reduced technical operational costs across 50 cities, saving these non-profits more than SAR 56 million.

Strong Governance & Ethical Excellence

stc Group is dedicated to embodying a standard ethical governance that upholds the utmost levels of integrity, transparency, and accountability. In 2023, stc Group transitioned its compliance function from legal affairs to an independent division reporting to the Chief Regulatory and Compliance Officer, ensuring programs across subsidiaries rigorously adhere to performance standards, thorough impact assessments, and responsible business practices. This included the expansion of the rawafed program, which boosts the local economy and promotes sustainable business. Through rawafed, stc partnered with 134 local SME suppliers and increased the number of local content certificates from 75 in 2022 to 582 in 2023, a 676% growth that is reflected across the local economy.

stc Group Concludes Its Participation in the Global AI Summit with Strategic Agreements and Launch of AI Lab

stc Group, an enabler of digital transformation, concluded its participation in the Global AI Summit by signing a series of strategic agreements with Saudi Railways (SAR), King Abdullah University of Science and Technology (KAUST), Huawei, the Research, Development, and Innovation Authority, and SambaNova Systems. stc's participation in the summit highlights its leadership role in driving digital transformation both locally and globally, showcasing its innovative solutions, products, and technologies, and reaffirming its commitment to positioning Saudi Arabia as a leading digital hub in the Middle East. The agreements aim to accelerate the group's strategic objectives in various fields, including Artificial Intelligence, innovation, and digital transformation. Among these partnerships is an agreement with Saudi Railways to enhance customer services through AI-based technological solutions that improve operations at all levels. Additionally, stc signed a strategic cooperation agreement with King Abdullah University of Science and Technology to establish a research center specializing in generative AI within the group. This center is the first of its kind in the region for R&D

and innovation in generative AI technology, leveraging the shared expertise of stc and the university in data and AI fields. stc also signed a cooperation agreement with Huawei in data, analytics, and AI fields to enhance stc's digital capabilities, develop network infrastructure, support data-driven decision-making, and improve corporate operations. The partnerships also included an agreement with the Research, Development, and Innovation Authority to develop mechanisms for supporting and enabling entrepreneurial projects, enhancing research opportunities, and providing empowerment for innovative ideas within future economy priorities. A strategic partnership agreement with SambaNova Systems was signed to deploy and expand the GenAI Sovereign Cloud within stc's data centers, enhancing AI capabilities for cloud infrastructure and supporting advanced AI applications in the Kingdom. During the summit, stc participated in several panel discussions to spread knowledge, including a session titled "Decoding AI Strategies," focusing on enabling companies to responsibly engage with AI applications by balancing competitive advantage, resource efficiency, and ethical considerations. Another session titled "The Role of AI in Skills Enhancement and Innovation" discussed AI's role in empowering employees and improving their skills according to labor market requirements, as well as continuous learning through AI-driven innovation. In the closing ceremony, stc Group received three awards, including recognition for its technical support and sponsorship of the summit as a digital enabler, an award for adopting AI ethics from the early stages, and a prize for solutions by stc, specializing in IoT products, under the innovation sponsorship category.

stc Group Demonstrates Automated Radio Resource Partitioning on 5G SA Network

The implementation of Automated RRP sets a new standard in 5G network optimization and performance.

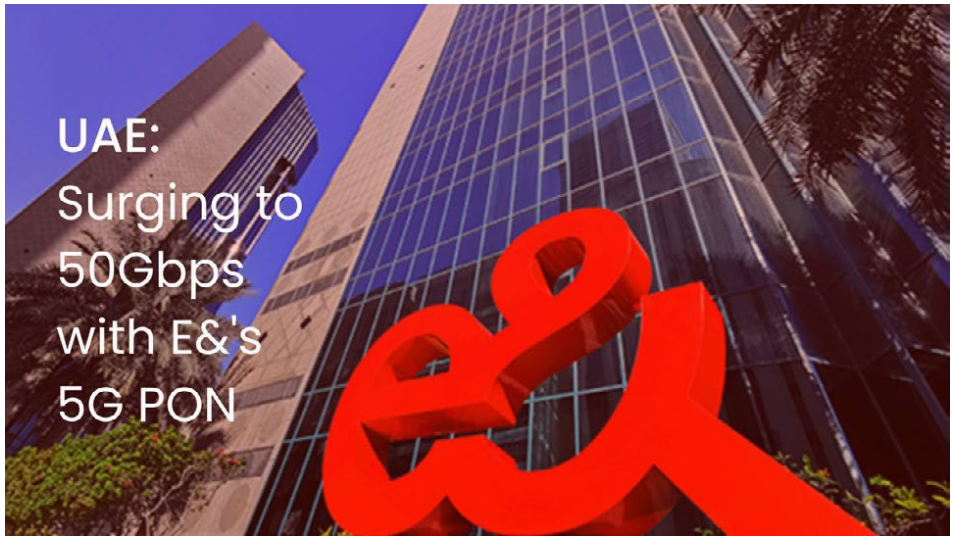
Highlights

- The new feature optimizes network performance with dynamic, intent-based automation.
- Live network demonstration showcases the technology's effectiveness with stc Group's 5G Core and Ericsson's products.
- Automated RRP prepares stc Group for 5G Advanced, enhancing throughput, latency, and availability.

Saudi Arabia's stc Group (stc) and Ericsson have announced the world's first implementation of Automated Radio Resource Partitioning (RRP) on a 5G standalone network slice. Automated RRP is a software feature based on intent-based automation, involving the dynamic and intelligent allocation of radio resources to different configured slices to optimize network performance. According to a joint statement released this week, a demonstration was conducted in a live network environment with a select group of users. This used stc Group's dual-mode 5G Core, Radio, and Transport products provided by Ericsson, along with the new Automated RRP software feature. stc Group states that Automated RRP enables it to prepare for 5G Advanced by creating a high-performance, programmable network. By setting specific targets for throughput, latency, and availability, stc Group ensures that the network automatically meets these goals through efficient resource allocation, the official release said.

e& UAE Accelerates 50G PON Technology Adoption Through Live Network Deployment

e& UAE has successfully deployed 50G PON (50-Gigabit-capable passive optical networks) technology in live network. 50G PON technology represents a significant leap from the previous GPON and XGS-PON technologies, which have been fundamental in delivering broadband services globally. It aims to increase internet speeds up to 50 Gigabits per second (Gbps) substantially, enabling faster streaming of high-definition videos, quicker downloads and uploads, and a more responsive online experience. Furthermore, it supports the growing number of smart devices at homes, from smart TVs to connected appliances, ensuring everything runs smoothly without interruptions. Marwan Bin Shakar,



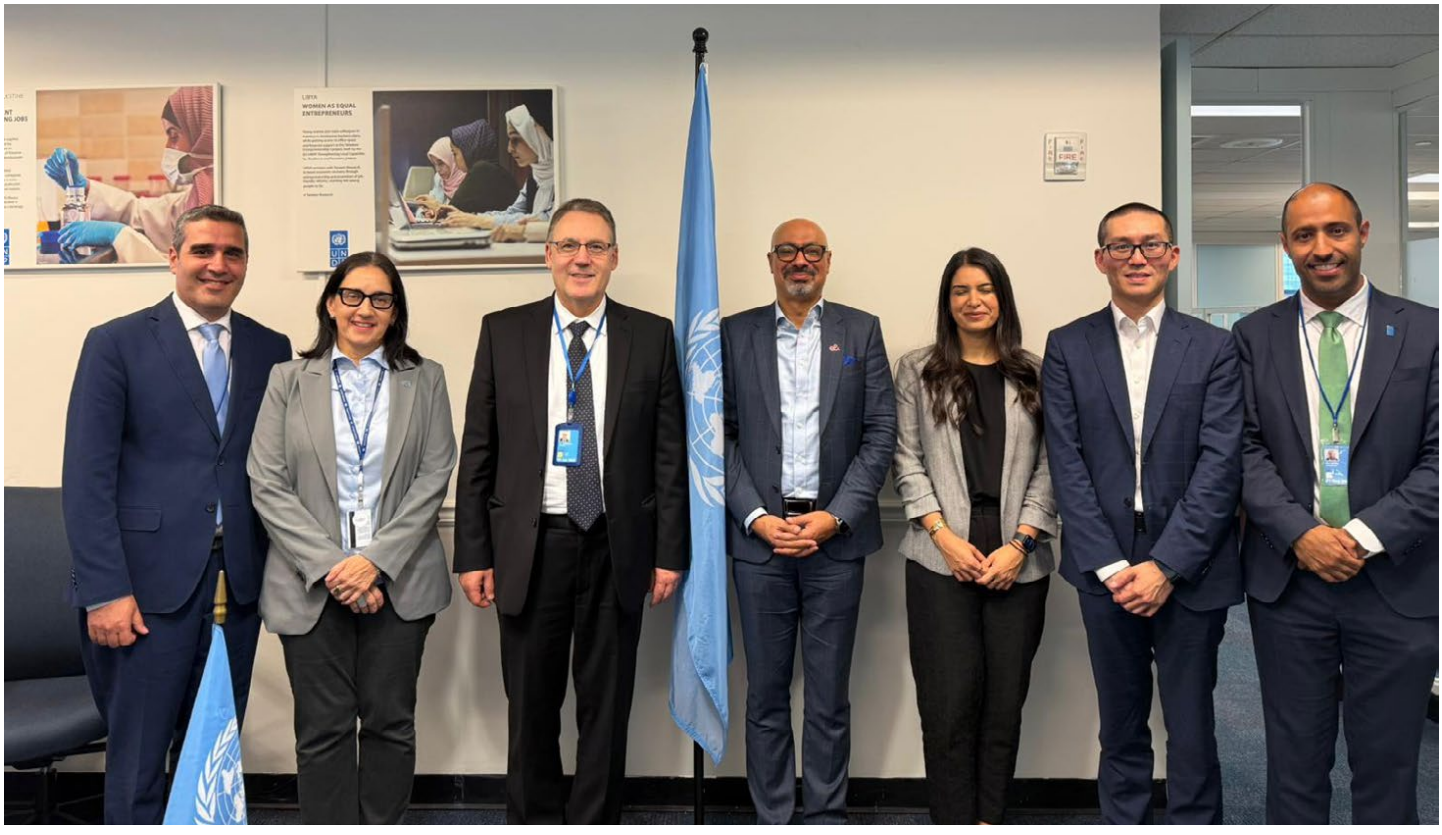
Senior Vice President Access Network Development, e& UAE, said, "At e&, we are committed to evolving and meeting the ever-growing demands for faster, more reliable, and widespread connectivity. With the deployment of 50G PON technology, we are leading the charge in transforming our network infrastructure and being future ready." e& UAE's deployment of 50G PON is among the pioneering initiatives globally, reflecting the UAE's leading position in telecommunications and connectivity. While most markets are still in the process of rolling out 10G PON technology or are in the early stages of adopting 50G PON, this live network deployment positions the country with a significant lead. "As we transition into an era of hyper-connectivity and digital transformation, 50G PON technology is beyond an upgrade—it's a revolution. It redefines the possibilities of fiber optic communication, paving the way for ultra-high-speed internet access across all sectors and industries. This advancement positions us at the forefront of global innovation, ready to unlock the future of connectivity," added Bin Shakar. 50G PON technology brings a wide array of benefits. For consumers, it means seamless streaming of high-resolution content, faster downloads and uploads, and a more responsive online experience. Additionally, businesses will benefit from quicker data transfers, enhanced cloud-based applications, and robust support for bandwidth-intensive operations like video conferencing, remote collaboration, and data backups.

e& UAE Announces the Winners of 'SMB Awards 2024'

e& UAE announced the winners of its third edition of 'SMB Awards 2024' celebrating the outstanding talent and innovation within the Small and Medium Businesses (SMBs) in the UAE. Held at the prestigious Jumeirah Emirates Towers in Dubai, the gala ceremony highlighted the exemplary accomplishments of SMBs across 14 distinct categories. Esam Mahmoud, Senior Vice President, SMB of e& UAE, said: "The SMB Awards celebrate the energy and success within our industry. Every organization we recognized exemplifies the spirit of innovation and resilience that drives the UAE's economic growth. As we navigate an increasingly competitive landscape, SMBs will continue to play a vital role in shaping the nation's dynamic and forward-thinking future. e& UAE is committed to supporting and enabling their continuous success, empowering them to set bold goals and embrace new challenges." SMB Awards 2024 proudly recognized outstanding businesses across various sectors, with winners including Little Diamond Nursery (Emirati Business Award), FURCHILD Food Stuff Supply (Women in Business Award), Xoom Delivery Services (Sustainability Award), Emirates Cancer Society (Social Impact Award), Qorden AI (Artificial Intelligence Award), Reliable Robotics (Robotics and Automation Award), Tawasal (Technology Award), MASSAED (Construction & Real Estate Award), Ahalia Medical Group (Healthcare Award), V Perfumes (Retail Award), Maristo Hospitality (Hospitality Award), MarineHub Fishing Equipment (E-Commerce Award), and Friends of Cancer Patients (Media & Marketing Award). Finally, the highly coveted SMB of the Year title was claimed by Black Tulip Flowers. This year, SMB Awards witnessed an overwhelming response, with around 300 nominations from diverse sectors across UAE. Each submission was meticulously evaluated by a distinguished panel of judges consisting of industry leaders and experts from various fields; including H.E Alia Abdulla Al Mazrouei, CEO of Khalifa Fund; Marwan Al Janahi, Senior Vice President of Dubai Science Park; Nasser Al Madani, Chief Advisor at Dubai Integrated Economic Zone; Suhail Bin Tarraf, Chief Operating Officer of First Abu Dhabi Bank; T J Wilson, Executive Director at Aster DM Healthcare; V. Nandakumar, Director of Marketing and Communications at LuLu Group International; and Yousuf Ahmad Lootah, CEO of Corporate Strategy & Performance Department at Dubai Economy & Tourism (DET). The rigorous judging process was managed and audited by Kreston Menon, a leading audit, business consultancy, and accounting firm affiliated with Kreston Global. SMB Awards 2024 underscores e& UAE's dedication to fostering innovation and excellence within the SMB sector. By celebrating these outstanding achievements, e& UAE aims to inspire businesses and entrepreneurs to strive for excellence and compete on regional and global stages, ultimately attaining long-term success and contributing to the UAE's vision for a diverse and resilient economy.

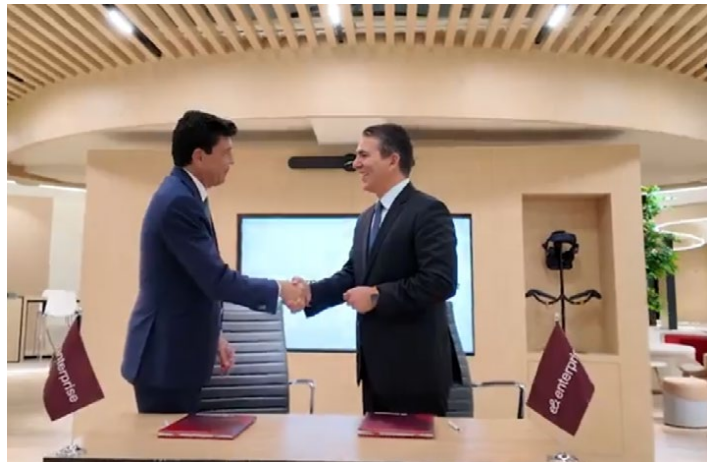
UNDP and e& Join Forces to Promote Digital Transformation for Sustainable Development in The Arab States Region

The United Nations Development Program (UNDP) and e&, signed a cooperation agreement on the sidelines of the 79th session of the UN General Assembly to leverage digital technologies for sustainable development in the Arab States region. Cooperation will focus on enhancing digital inclusion to bridge digital divides; promoting transition to a digital economy, focusing on enabling solutions for medium, small and micro enterprises (MSMEs); expanding the use of artificial intelligence (AI) for climate resilience, and fostering robust public-private partnerships for digital cooperation—under the rubric of the Digital for Sustainable Development (D4SD) initiative, which UNDP is leading alongside key partners in the region. "The pursuit of the Sustainable Development Goals in the Arab States region requires urgent action at scale, which requires expanded and effective partnerships, especially with the business sector," said Abdallah Al-Dardari, UN Assistant Secretary General and Director of the Regional Bureau for Arab States in UNDP. "We value this new partnership with the e& as an eminent provider of digital services across the Middle East, Asia, and Africa—leveraging its market leadership to harness digital solutions to promote sustainable development, particularly in the realms of AI, financial inclusion and digital capacity building." The new partnership will support the AI for Sustainable Development (AI4SD) platform –one of the lead initiatives of the D4SD partnership– by providing transformative digital solutions, data, and technical support to promote the ethical use of AI for the public good in key areas related to the pursuit of the SDGs. It will also support the development of the Climate & Natural Disaster Crises (CNDC) Platform, aimed at improving resilience to climate-related challenges like floods, earthquakes, and droughts through AI-powered insights and data visualization tools. e& will also work with UNDP on pilots in Egypt through its subsidiary, Erada Microfinance focusing on increasing financial inclusion and women entrepreneurship in Egypt's Upper Region, accelerating SDGs implementation through developing accessible health insurance products, green transformation and financing of risk facilities. The cooperation will also extend the reach of the Arab Knowledge Project, part of UNDP's FutureSkills4All initiative. e& Egypt and UNDP are working to provide free access to FutureSkills4All's online courses. Hatem Dowidar, Group CEO, e& said: "We are incredibly proud to partner with UNDP on such vital initiatives. This collaboration represents an integral step towards harnessing advanced technologies to foster economic growth, enhance public services and empower communities, both developed and underserved. By working across these initiatives to promote a digital economy, sustainable development and build digital capacity, we aim to drive meaningful change and unlock new opportunities across the Arab states. Together, we are committed to creating a more inclusive, sustainable, and resilient future for all." The partnership will also boost digital capacity building efforts through initiatives like the Arab Knowledge Project and promote sustainable development goals through active stakeholder engagement and the dissemination of best practices, driving innovation and fostering knowledge exchange through expanding strategic digital public-private collaborative efforts.



e& Enterprise Successfully Completes US$60 Million Acquisition of GlassHouse, Expanding into Türkiye

e& enterprise, the digital transformation arm of e&, announced the successful completion of its US$60 million acquisition of GlassHouse, a leading Türkiye-based provider of managed cloud, business continuity and SAP Infrastructure services. The acquisition, originally announced in June this year, strengthens e& enterprise's capabilities in private cloud and managed services, bolstering its overall value proposition with the addition of SAP capabilities and vertical expertise within the banking and financial services sector – supported by GlassHouse's deep understanding and specialist skills in this space. It also marks a significant milestone in e& enterprise's international growth strategy, following successful market entries into Saudi Arabia in 2019, Egypt in 2023, and now Türkiye, Qatar and South Africa. This acquisition also expands e& group's operational footprint to 34 markets. Now part of the e& enterprise family, GlassHouse is well-positioned for growth with a strategic focus on augmenting e& enterprise's SAP capabilities in both the UAE and Saudi Arabia. As the new wholly-owned subsidiary of e& enterprise, GlassHouse will retain its brand identity and continue to operate independently. Salvador Anglada, Chief Executive Officer, e& enterprise, said: "We are thrilled to welcome GlassHouse into the e& enterprise ecosystem as we continue to bolster our value proposition by reinforcing our capabilities, adding vertical expertise, and expanding into high-growth markets. This acquisition is another bold step in our journey to becoming a regional leader in end-to-end digital transformation." Alp Bağrıaçık, CEO, GlassHouse, said: "I am both proud and delighted to announce the successful integration of our company into the e& enterprise ecosystem. By harnessing e& enterprise's robust portfolio, we will provide our customers with cutting-edge security solutions and innovative strategies to accelerate their digital transformation journey." Founded in 2004, GlassHouse has established itself as a prominent player in the cloud services sector. It offers managed cloud, business continuity, on-premise backup, private sovereign cloud, and SAP Infrastructure services to over 2,000 enterprises in select geographies. The company boasts a robust presence in the financial services sector, serving nine of the top 10 banks in Türkiye. With over 150 professionals operating across offices in Türkiye, South Africa, and Qatar, GlassHouse is a trusted partner for industry giants such as Microsoft, Dell, and SAP.



e& Increases Its Stake in Vodafone

U.K.-based Vodafone Group said Emirates Investment Authority, which operates under the e& brand, has raised its shareholding in the company and now owns 15.01% of its voting rights. In a filing, Vodafone said that Emirates Investment Authority currently owns 3.94 billion voting rights in the company. It previously owned 14.006%. The rights are worth 3 billion pounds ($3.94 billion) based on Vodafone's closing share price of 75.62 pence. In May, Vodafone and e&, which is 60% owned by the UAE government, announced a strategic relationship in which the latter increased its ownership in Vodafone to 14.6% The Arab telco had initially invested £3 billion in Vodafone in 2022. Under the terms of the strategic partnership, e& can increase its stake in the U.K. carrier to just under 25%. As part of the deal, the CEO of e& was given a seat on Vodafone's board subject to regulatory approvals, with the Arab telco also given the opportunity to appoint an independent non-executive director if its stake in Vodafone increases above 20%. The U.K. government previously said that the stake in local carrier Vodafone held by e& group poses a national security risk to the country. The Cabinet Office had warned that the stake held in Vodafone by e&, represents a security concern for the authorities due to the strategic role of Vodafone in the U.K.'s telecommunications market and given the telco's role in contributing to the U.K.'s cybersecurity and as a supplier to government departments. The government had ordered Vodafone to organize a national security committee with the aim of overseeing and monitoring any sensitive work it carries out which could have an impact on national security. The U.K. government highlighted that this action was necessary and proportionate with the aim of mitigating the risk to national security. The Cabinet Office also noted the partnership would enable e& to "materially influence policy at Vodafone." Oliver Dowden, secretary of state at the Cabinet Office, has made several orders, including requirements that the U.K. government be notified if any element of the relationship changes.

Etihad Etisalat Co. (Mobily) Announces Its Consolidated Interim Financial Results for the Period Ending on 30-06-2024

Mobily continued to grow its revenue to reach SAR 4,465 million in Q2 2024 versus SAR 4,269 million in Q2 2023, representing a YoY growth of 4.6%. This growth is attributed to the expansion of all revenue streams, with the business segment leading the charge. The reason of the increase (decrease) in the net profit during the current quarter compared to the same quarter of the last year Mobily achieved a net profit of SAR 661 million for Q2 2024, reflecting a 33.0% increase compared to SAR 497 million in Q2 2023, due to the following:

Gross Profit: Gross profit reached SAR 2,378 million in Q2 2024 versus SAR 2,399 million in Q2 2023, decreasing by 0.88%.

Earnings Before Interest, Tax, Depreciation, and Amortization **(EBITDA):** EBITDA rose 3.4% YoY to SAR 1,650 million in Q2 2024, compared to SAR 1,596 million in Q2 2023, reflecting the growth in revenue. EBITDA margin reached 37.0% in Q2 2024 versus 37.3% in Q2 2023.

Operating Profit: Operational profit saw a 14.0% YoY increase in Q2 2024, reaching SAR 759 million from SAR 666 million in Q2 2023, due to the improvement in EBITDA.

Financial Charges and Zakat & Income Tax: Financial charges decreased by 26.2% in Q2 2024, reaching SAR 130 million compared to SAR 176 million in Q2 2023, due to the reduction of debt portfolio. Zakat & Income tax came in at SAR 29 million in Q2 2024 compared to SAR 33 million in Q2 2023. The reason of the increase (decrease) in the sales/ revenues during the current quarter compared to the previous one Mobily's revenue amounted to SAR 4,465 million in Q2 2024, compared to SAR 4,545 million in Q1 2024, decreasing by 1.76% due to the decline in consumer revenue. The reason of the increase (decrease) in the net profit (loss) during the current quarter compared to the previous one Mobily achieved a net profit of SAR 661 million in Q2 2024, representing an increase of 3.61% compared to SAR 638 million in Q1 2024, due to the following:

Gross Profit: Gross profit reached SAR 2,378 million in Q2 2024, compared to SAR 2,445 million in Q1 2024, representing a decrease of 2.74% QoQ due to the decline in revenue.

Earnings Before Interest, Tax, Depreciation, and Amortization **(EBITDA):** Despite the decrease in revenue, EBITDA level was stable in Q2 2024, reaching SAR 1,650 million versus SAR 1,651 million in Q1 2024, due to the Company's operational efficiency. EBITDA margin also improved to 37.0% in Q2 2024, up from 36.3% in Q1 2024.

Operating Profit: Operational profit increased by 0.8% in Q2 2024, reaching SAR 759 million from SAR753 million in Q1 2024.

Financial Charges and Zakat & Income Tax: Financial charges increased by 22.3% in Q2 2024 to SAR 130 million from SAR 167 million in Q1 2024, due to a decline in the debt portfolio. Zakat & Income tax for Q2 2024 was SAR 29 million, compared to SAR 35 million in Q1 2024. The reason of the increase (decrease) in the sales/ revenues during the current period compared to the same period of the last year is Mobily delivered a revenue growth of 8.1%, reaching SAR 9,011 million for the period ended 30 June 2024, compared to SAR 8,338 million in the same period last year. This growth is attributed to the expansion of all revenue streams, driven mainly by the business segment. The reason of the increase (decrease) in the net profit during the current period compared to the same period of the last year Mobily's net profit saw a significant increase of 35.0%, reaching SAR 1,299 million in H1 2024, compared to SAR 962 million in H1 2023, driven mainly by the following:

Gross Profit: Gross profit climbed 3.3% to SAR 4,823 million in H1 2024 versus SAR 4,669 million for the similar period of the previous year, mirroring the growth in revenues.

Earnings Before Interest, Tax, Depreciation, and Amortization (EBITDA): Mobily's EBITDA rose 4.5% to SAR 3,301 million in H1 2024, up from SAR 3,158 million in H1 2023. The increase is attributed to the growth in revenues. EBITDA margin reached 36.6% in the current period versus 37.9% in the similar period last year.

Operating Profit: Operational profit increased by 16.1% to SAR 1,512 million in H1 2024, compared SAR 1,302 million in H1 2023, driven by the rise in EBITDA.

Financial Charges and Zakat & Income Tax: Financial charges decreased 14.8% to SAR 297 million in H1 2024, compared to SAR 348 million in H1 2023, due to a reduction in the debt portfolio. Zakat & Income tax amounted to SAR 63 million in the current period, compared to SAR 75 million in the same period last year.

Etihad Etisalat Co. (Mobily) Announces the Board of Directors' Decision to Distribute Interim Cash Dividends to Shareholders for the First Half of 2024

Etihad Etisalat Co. (Mobily) announces the Board of Directors' decision to distribute interim cash dividends to shareholders for the first half of 2024. The Company would like to draw the attention of non-resident shareholders that the dividend paid to them will be subject to a withholding tax of 5% upon transferring or crediting these dividends into their bank accounts, in accordance with the provisions of Article (68) of the Income Tax Law and Article (63) of its Implementing Regulations. Etihad Etisalat Co. (Mobily) urges its esteemed shareholders to update their data and link their bank account numbers to their investment portfolios to ensure the timely receipt of their dividends.

Omantel Partners with Oman Science Festival 2024 to Foster Youth Interest in STEM

Omantel is proud to announce its role as a technical partner for the upcoming Oman Science Festival 2024, taking place from 4th to 11th November 2024. This partnership underscores Omantel's ongoing commitment to fostering interest in science, technology, engineering, and mathematics (STEM) among youth, encouraging the development of their scientific and innovative capabilities. Aligned with the company's vision of leveraging digital technology to support education, Omantel will collaborate with the Ministry of Education to implement advanced technical programs tailored for students at various educational levels. The company will provide state-of-the-art technologies, including artificial intelligence, robotics, and virtual reality, to enhance students' learning experiences and open new avenues for scientific exploration. Talal bin Said Al Mamari, CEO of Omantel, emphasized the company's dedication to nurturing technical skills among young individuals, viewing this as a critical national investment in developing future talent and building capacity. "The Oman Science Festival offers an excellent platform to empower students and equip them with the skills needed to face future challenges," said Al Mamari. "Through our collaboration, we aim to inspire students to integrate science and technology into their educational journeys." These initiatives aim to cultivate a forward-thinking generation adept at innovation and proficient in utilizing technology to enhance various aspects of daily life. The partnership between Omantel and the Oman Science Festival is expected to significantly enrich the scientific knowledge of youth, inspiring them to delve deeper into the realms of science and technology through engaging and interactive activities. Omantel remains committed to contributing to the objectives of Oman Vision 2040 by investing in emerging technologies and providing cutting-edge ICT solutions to foster innovation and leadership in new and advanced technologies. 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 state-of-the-art solutions to different consumer and business sectors. The company aims to deliver an unparalleled, exceptional experience to its customers and strives to always exceed their expectations. To achieve the objectives of Oman Vision 2040, Omantel invests in emerging technologies and provides cutting-edge ICT solutions, such as cloud 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's 5G-A RedCap Successful Trials: A Tailwind for Digital Transformation

Reflecting its unwavering commitment to enhancing Oman's digital infrastructure, Omantel has successfully conducted a laboratory trial of RedCap, an advanced 5G technology. This innovation promises higher speeds and greater efficiency for the 5G network at a lower cost, adding significant value to the services offered to Omantel customers. This initiative aligns with Omantel's strategic goal of providing unparalleled digital solutions. Developed in collaboration with Huawei, RedCap represents a significant advancement in 5G technology, aimed at improving internet connectivity and expanding the range of applications available to users. Dr. Ali bin Said Al Hashmi, General Manager of Infrastructure Planning and Design at Omantel, remarked, "We are excited to pioneer advanced technological solutions within the Sultanate of Oman. Our efforts contribute to accelerating the digital transformation process and fostering a knowledge-based economy, in line with Oman Vision 2040's objectives for the technology sector. Our goal is to elevate service standards for both business and individual subscribers, ensuring access to world-class services." Dr. Al Hashmi further noted, "The successful trials of RedCap's 5G technology mark a significant milestone in our journey toward a thriving digital future for Oman. We believe this technology will revolutionize the telecommunications sector and unlock new opportunities for innovation and business growth." Designed to meet the evolving demands of Internet of Things (IoT) applications, RedCap offers high speeds and energy efficiency, making it ideal for a range of devices, from smart wearables to advanced industrial equipment. This technology ensures fast and seamless user experiences while extending the battery life of connected devices, thereby reducing operational and maintenance costs. The benefits of RedCap technology extend beyond superior internet speeds. It paves the way for diverse applications, including remote monitoring, industrial process optimization, and enhanced healthcare solutions, among others. Through the integration of its operations, processes, and extensive expertise in communications and digital technology, Omantel has established itself as a leading telecommunications company in Oman and beyond. The company's innovative approaches have delivered state-of-the-art solutions to various consumer and business sectors. Committed to delivering exceptional customer experiences and exceeding expectations, Omantel invests in emerging technologies to help advance Oman Vision 2040. This includes cutting-edge ICT solutions such as cloud computing, AI, smart solutions, cybersecurity, and more, driving innovation and leadership in new and advanced technologies.

Zain Iraq Partners with Nokia to Modernize Network to Enhance Customer Experience

To fuel Zain Iraq's drive towards elevating its customer experience and network connectivity, the operator has entered a strategic partnership with Nokia to significantly upgrade and modernize its network capabilities across southern Iraq. This three-year initiative will leverage Nokia's advanced microwave technology to boost Zain's network performance, ensuring it can effectively manage the growing demand for data services. Emre Gurkan, CEO of Zain Iraq, commented: "As a leading operator serving 19 million customers across the country, we strive to offer a great and efficient mobile customer experience. With the digital transformation driving demand for higher network capacities and the latest technologies, this agreement with leading global solution providers enables us to modernize our network infrastructure to overcome capacity limitations. Our aim is to not only resolve current challenges, but also to future-proof our network for future growth, catering for the

country's ever-growing young and data-savvy population." Through this agreement, Zain Iraq aims to lay the groundwork for future innovations across the country catering to the anticipated surge in data usage driven by increasing customer needs. Mikko Lavanti, Senior Vice President of Mobile Networks at Nokia MEA, added: "This deal underscores our strong local capabilities and expertise. By deploying our advanced microwave solutions, Zain Iraq will benefit from an optimized network that is ready to handle the demands of the future, including meeting the needs of its growing customer base." Zain Iraq will introduce Nokia's high-capacity microwave solutions to its network, including the UBT-T XP version, offering one of the highest transmit power in the market. This technology reduces antenna sizes and tower load, delivering significant capital expenditure (CAPEX) and operational expenditure (OPEX) savings.

Zain Group Q2 2024 Normalized Net Income Growth Soars 55% to Reach KD 52 Million (USD 170 Million), Board Declares Interim Dividend of 10 Fils Per Share

Zain Group, a leading provider of innovative technologies and digital lifestyle communications operating in eight markets across the Middle East and Africa, announces its consolidated financial results for Q2 and six months ended June 30, 2024. Zain served 47.8 million customers at the end Q2 2024, an exceptional 13% increase from Q1 2024, as 5 million customers return to the network, due to the network stabilization efforts being carried out in Sudan. In Q2 2024, Zain Group generated consolidated revenue of KD 479 million (USD 1.6 billion), up 4% compared to Q2 2023. Normalized EBITDA grew 13% YoY to reach KD 178 million (USD 579 million), reflecting an EBITDA margin of 37%. Normalized net income growth soared 55% to reach KD 52 million (USD 170 million) reflecting an earnings per share of 12 fils. Normalized EBITDA and net income growth for Q2 2024 is arrived at by adjusting the number range claim in Q2 2023. For H1 2024, Zain Group generated consolidated revenue of KD 945 million (USD 3.1 billion). Normalized EBITDA grew 1% YoY to reach KD 325 million (USD 1.1 billion), reflecting an EBITDA margin of 34%. Normalized net income growth for the first six months was 11% reaching KD 81 million (USD 265 million), reflecting earnings per share of 19 fils (USD 0.06). Normalized EBITDA and net income growth for H1 2024 is arrived at by adjusting the number range claim and Tower transaction gain in H1 2023.

Key Operational Notes for Q2 and H1 2024

1. The Board declares an interim dividend of 10 fils per share for the 4th consecutive year, that will be payable to entitled shareholders on 6 October 2024.
2. Zain KSA announces cash dividend of SAR 449 million (USD 120m). Zain Group received USD44m.
3. In comparative terms, Q2'24 net-profit growth is impacted by Kuwait number range claim in Q2'23
4. Q2 2024 includes USD 20 million impairment of network assets in Sudan
5. Overall Q2 revenue grew 4% YoY despite the network and distribution operational challenges in Sudan, whereby network services and coverage are gradually improving
6. Sudan recovery plan and new data center sees over 5 million customers returning to the network resulting in 13% increase in total Group customers compared to Q1'24
7. Currency devaluation in Sudan negatively impacted H1'24 key financial KPIs (currency devalued from SDG 596 per 1 USD in June'23 to SDG 1,799 per 1 USD by end of June'24)
8. H1 2024 data revenue grew 1% YoY to reach USD 1.2 billion, representing 39% of Group revenue
9. Over the six months, Zain Group invested USD 159 million in CAPEX (tangible and intangible)
10. Operations in Kuwait, KSA, Bahrain and Jordan witness impressive H1 2024 growth in 5G revenues
11. Fintech services witness exponential growth for H1 2024 as total revenue increased 24% YoY, with transaction value increasing 56%
12. Enterprise revenue for H1 2024 up 9% as ZainTECH and local B2B teams secure multiple deals including the integration of the STS acquisition during H1 2024
13. Digital operators Yaqoot in KSA, and Oodi in Iraq, report customer growth of 8% and 37% respectively
14. Digital services including Dizlee API platform add gaming and streaming services to drive growth and expand the customer base
15. Zain wins Best Corporate Governance Award 2024 by World Finance; Leadership in SDGs Award 2023; and Championship Award in Women Empowerment 2024 at the 9th Annual Global Good Governance Awards organized by Cambridge IFA
16. Zain publishes its 13th annual sustainability report, entitled "A Pathway to Value Creation"

A Regional First: Zain Group Partners with 'Be My Eyes' to Provide Accessibility Assistance to People Who are Blind or have Low Vision

Zain Group has entered a regional first-of-its-kind strategic partnership with 'Be My Eyes' to provide instant visual assistance for people who are blind or have low vision. Following a series of successful pilots across Zain markets, the new group-wide partnership with Be My Eyes will see Zain personnel regularly act as sighted volunteers on the Be My Eyes platform. Be My Eyes develops and runs the largest and fastest-growing accessibility app for the blind and low vision community worldwide, with approximately 700,000 users globally of which close to 100,000 are Arabic-speaking blind users. The recipient of several innovation and accessibility awards, Be My Eyes also has over 7.7 million volunteers, spread across 150+ countries providing support in 180+ languages. The collaboration will see Be My Eyes educate and facilitate 16 volunteering events, over a period of a year, for Zain employees, with each event lasting four hours and up to 100 personnel. The volunteering events will allow Zainers to sign up and answer one-way video, two-way audio calls from people in need of some sort of assistance. In practice, once the volunteer gets the video call, they will answer user questions about anything the user's smartphone camera can see, such as reading a document, identifying where something is, in their home, school or workplace, describing a new environment, and many other potential scenarios. Commenting on the initiative, Bader Al-Kharafi, Zain Vice-Chairman and Group CEO, said, "We are an operator from the region and for the region, passionate about community programs that add meaningful connectivity to all people we have the privilege of serving and beyond. We are proud of our record of introducing new solutions and initiatives to the region for the first time, and our collaboration with Be My Eyes reflects our commitment to inclusion by harnessing technology to better serve the global community." "At Be My Eyes, we are thrilled to partner with Zain Group, a leader in the digital landscape across the Middle East and Africa. This collaboration represents a significant step forward in our mission to make the world more accessible for blind and low-vision individuals." said Mike Buckley, CEO of Be My Eyes. "Together, we are not only enhancing accessibility but also fostering meaningful connections that provide information, with speed and elegance, about a world not designed for the blind." **A summary of 'Inclusive' initiatives implemented by Zain**

Zain is one of the most active companies regionally with respect to providing access to people with disabilities having implemented a fully-fledged disability inclusive strategy, reflecting its commitment to fostering technology to support this community. Zain has introduced an array of initiatives under its Disability's WE ABLE program, most recently, in August 2024, having over 80 of its people with disabilities (PWDs), the company introduced 'The Masters', an Employee Resource Group made up of approximately 25 PWDS all with a collective purpose of enabling them to create, lead, and shape their experiences at Zain through a focus on four core impact areas: 1. Disability Inclusion Strategy; 2. Accessibility in Decision-Making; 3. Learn and Lead; 4. Voice and Visibility. Over recent years, Zain also introduced in Jordan, a service to allow people with low vision, blind, hearing impaired, or deaf individuals to interact with contracts and understand their terms through an audio-visual video available through scanning a QR Code located in Zain showrooms across the Kingdom. Moreover, the company's Grow program saw the training of 28 fresh graduates with disabilities teaching them valuable lessons and knowledge and skills related to mastering job interviews, business technology, teamwork and tools that resulted in the recruitment of 10 graduates to join Zain full-time. Other initiatives include celebrating Braille Day by teaching employees Braille; celebrating World Hearing Day by conducting health checks and tests for employees; Sign language trainings for more than 350 employees; holding multiple sessions where employees are taught about disability and accessibility; a strategic partnership with Purplespace, the world's only professional development hub for disability network leaders; Physical accessibility audits of all Zain headquarters across all markets; and implementation of "Reasonable Accommodations and Accessibility Guidelines." Zain's strategic partnership with Be My Eyes will result in having more volunteers from the company's eight country footprint on the app to act as volunteers for the Be My Eyes user community. The innovative and personal approach aligns with both Zain's Corporate Sustainability program; and the Disability program's 'We ABLE' initiative focusing on empowering its people to practice social responsibility, fostering a society where everyone has equal opportunities to dream and succeed.

Zain Awarded 'Best Corporate Governance in Kuwait' Accolade from World Finance for Milestone Fourth Consecutive Year

Zain, a leading provider of innovative technologies and digital lifestyle communications operating in eight markets across the Middle East and Africa, has been awarded World Finance's 'Best Corporate Governance Award 2024 for Kuwait', for a milestone fourth consecutive year. London-based World Finance is a reputable print and online magazine providing comprehensive coverage and analysis of the financial industry, international business, and the global economy. Corporate Governance is becoming an increasingly important differentiator for organizations, particularly those such as Zain, which are listed on public bourses, with respect to giving all stakeholders confidence that the company is being run in a compliant and transparent manner. As such, Zain's Investor Relations and Corporate Governance Framework is a cornerstone of the company's regional appeal, and has attracted ongoing praise and admiration from shareholders, industry analysts, and regulatory authorities. As a leading entity listed on the Premier Market, Zain abides fully to market regulations issued by all financial regulatory bodies in Kuwait and across our footprint, including the Ministry of Commerce and Industry, the Capital Markets Authority (CMA), and Boursa Kuwait as well as other regulatory bodies where Zain is listed. Bader Al-Kharafi, Zain Vice-Chairman and Group CEO said, "Zain believes sound corporate governance plays a significant role in providing long-term sustainable value to all stakeholders. This milestone fourth consecutive recognition justly rewards our Investor Relations, Sustainability and Corporate Governance team's consistent high ethical standards, professionalism and diligence." Zain's Corporate Governance framework helps it mitigate risks and facilitates an effective Board oversight over the company's executive management by monitoring the implementation of policies when running daily operations. Corporate Governance promotes strong internal controls to improve integrity of financials and establishes a culture of compliance. This governance structure has helped Zain to win the confidence of the market and attract global investors. Furthermore, Zain's Investor Relations, Sustainability, and Corporate Governance departments are committed to raising awareness on issues related to the environment, social, and governance (ESG) matters in response to global trends and best practices. Accordingly, Zain has developed new policies and is working to increase transparency in addition to focusing on social responsibility. Such policies and procedures are flexible, and take into account both short- and long-term challenges and risks. Notably, both Zain's Annual Report as well as its Sustainability Report demonstrate the company's efforts to provide Meaningful Connectivity leading to equitable systemic change, as well as highlighting how Zain is placing ESG activities and sustainable growth at the forefront of its activities, believing in the nurturing of positive relationships among all stakeholders.

AT&T to Expand Gigapower Fiber JV Footprint

AT&T revealed plans to expand the reach of its fibre joint venture with private equity firm BlackRock Alternatives beyond the initial 1.5 million locations announced in late 2022, as well as unveiling four new agreements with commercial open access providers. The operator stated the Gigapower expansion could include growth in its existing geographies as well as new locations. AT&T executives initially pitched the JV as a way to compete outside of its traditional 21-state footprint. While rivals Verizon and T-Mobile US have both recently announced deals to expand their fiber holdings, AT&T claims to be the largest provider in the US based on the number of fiber-to-the-home households. The company serves more than 8.8 million AT&T Fiber customers and passes more than 28 million total consumer and business locations. AT&T CEO John Stankey is a big proponent of converged mobile and fiber-based services. To reach more locations with AT&T Fiber in geographies not served by its network or Gigapower, the operator announced four new agreements with commercial open-access providers: Boldyn Networks, Digital Infrastructure Group, PRIME FiBER and Ubiquity. It stated

those agreements allow it to offer fiber and 5G services to more customers in service areas that do not have existing fiber options.

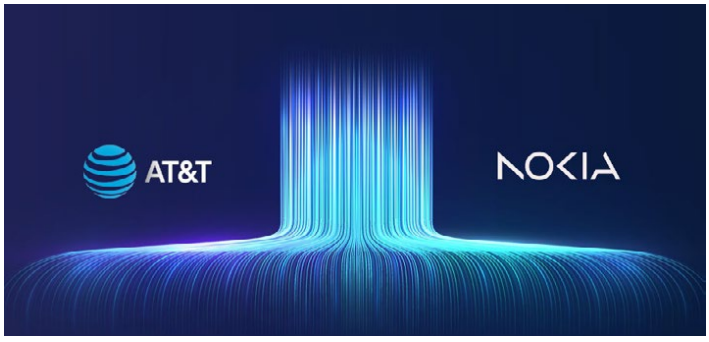
AT&T Strikes 5G, Fiber Bundle Deal with Windstream's Kinetic

AT&T has struck a deal with Kinetic, the broadband brand of Windstream Communications, to create a fiber + wireless service bundle across Kinetic's 18-state, rural-focused footprint. Kinetic serves customers in the central U.S. from Minnesota to Texas, across the Southeast and in parts of the Mid-Atlantic, including Pennsylvania and the state of New York. The two companies framed the deal as "innovative teaming" and emphasized cost-savings and closing the digital divide via their joint service offers, saying in a release: "There is increased demand for converged connectivity offerings, not only for existing customers looking to save on connectivity, but also for new customers who are looking

for a reliable connectivity experience. Consumers are looking for powerful connections that come with profound savings, and this collaboration aims to provide just that." "This is another monumental step to bring industry-leading quality and affordability to the communities Kinetic serves," said Kinetic CMO Ben Midanek in a statement. Customers who get both wireless service from AT&T and home broadband from Kinetic (services are billed separately, it was noted) will get $20 off of their monthly internet services, for up to 24 months as long as they maintain both services; existing Kinetic customers who switch to AT&T can also get a $200 rewards card, in addition to AT&T's standard promotional offers. Kinetic offers plans with speeds up to 2 Gbps. The two telecom partners also focused on their joint offers as part of work to close the rural/urban digital divide and bring rural customers new service options. AT&T pointed out its $5 billion commitment that aims to support 25 million people getting and staying connected by 2030, through both network infrastructure extensions, public-private partnerships, discounts and digital literacy programs. Kinetic, meanwhile, has laid out plans for a multi-year, $2 billion investment to upgrade its infrastructure. "This is an evolution in strategic bundling focused on customer service. By collaborating with Kinetic, we'll be able to put more smartphones in the hands of more Americans," said Erin Scarborough, SVP of consumer product for AT&T, adding: "This collaboration advances our mission to connect people to greater possibility including bringing connectivity to help bridge the Digital Divide for millions across underserved and unserved communities."

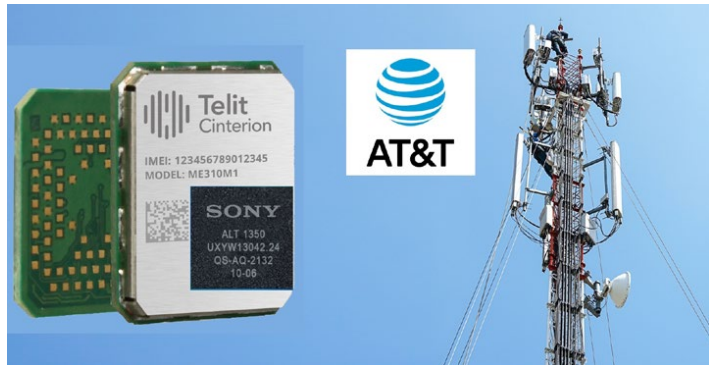
AT&T, Nokia Agree on 5-Year Access Technology Deal

AT&T and Nokia have signed a five-year agreement under which the vendor will support the carrier's fiber network, which passed 27.8 million locations as of the second quarter of the year, according to the vendor. The fiber access technology will be compliant with Build America, Buy America (BABA) rules in place for the $42.45 billion Broadband Equity, Access, and Deployment (BEAD) program. The contract focuses on Lightspan MF and Altiplano Access Controller technology that will support PON networks that offer capacities of 10G, 25G, 50G, and 100G. No financial details were included in the press release. “Fiber plays a crucial role in providing the foundation for the services we offer to our customers,” said Chris Sambar, Head of Network at AT&T, of the Nokia deal. “This expansion will not only enhance broadband access for millions of customers but also sets the stage for the next wave of digital innovation, including Industry 4.0, smart cities, IoT applications, and ultra-high-definition streaming.” Early last month, Nokia said that 21 of its products had been self-certified for BABA. The FX and MF OLT modular product lines, the SF-8M sealed OLT, and the XS-220X-A ONT were highlighted in the press release. AT&T and Nokia have a long relationship. In March, 2021, the two companies agreed to a five-year deal under which they would work together on the carrier's C-band 5G technology. Nokia's technology supports both standalone and noon-standalone and non-standalone (SA and NSA) approaches. The next month, the companies completed what Nokia said was the first call on AT&T's network using 5G technology in C-band spectrum. The call was made in Detroit with a 5G smartphone form factor mobile test device using Qualcomm's Snapdragon X555G modem-RF system, the Nokia AirScale baseband and 5G massive MIMO (mMIMO) antennas that, along with Nokia 5G software, operates in the n77 (3700-3980 MHz) spectrum.



AT&T Clears Sony-based Telit Cinterion IoT Module for LTE-M

AT&T gave IoT company Telit Cinterion a major boost by approving its latest LPWA module, a blessing enabling the unit to be deployed on the US operator's LTE-M network. Telit Cinterion stated the ME310M1-W1 module is the first based on Sony Semiconductor Israel's Altair ALT1350 chipset to be approved by AT&T. The IoT company now plans to seek approval for 3GPP specifications in various releases, with data communication over non-terrestrial networks among them. AT&T lists utility meters, agriculture, alarms and smoke detectors among the potential uses of its LTE-M network, which covers large parts of North America with a low-power network. Cameron Coursey, VP of AT&T Connected Solutions, explained the module is well-suited to the services run on its LTE-M network, because “many IoT applications have business models that require zero touch after installation”. Telit Cinterion highlighted Sony's chip is compatible with licensed and unlicensed spectrum, along with satellite connectivity, factors the IoT player stated helps to deliver smaller modules and lower power consumption.



China Mobile Tops 1B User Milestone

China Mobile, the largest mobile player in the world by connections, surpassed the 1 billion subscriber mark at the end of Q2 with the company adding nearly 9.3 million new subs year-on-year. The operator's user base is more than twice that of the world's second-largest player Reliance Jio in India which has 489.7 million, data from GSMA Intelligence showed. China Telecom was third with nearly 417 million mobile subs, Bharti Airtel fourth with 355.8 million, followed by China Unicom with 339.5 million. In Q2 2019, just months before 5G launched in the mainland, China Mobile had 935 million subs. Its net additions since then is larger than all but 23 operators worldwide. China Broadnet, the country's fourth mobile player, ended June with 65.6 million subs, GSMA Intelligence estimates. China Mobile closed June with 514.2 million 5G network customers, accounting for 51.4 per cent of total subs. Its 5G base station count increased by 351,000 in H1 to 2.3 million.

China Mobile International Maxis, Announce Partnership to Accelerate 5G in Malaysia

China Mobile International (CMI) and Maxis have signed a Memorandum of Understanding (MoU), initiating a strategic alliance focused on accelerating 5G advancements. The agreement was formalized at the China Mobile Southeast Asia Cooperation Conference in Bangkok. Through this partnership, the companies intend to leverage their combined expertise to drive innovation and enhance growth in the telecommunications sector.

Pioneering Advanced Smart Projects

"We are pleased to collaborate with a telecommunications leader like CMI to accelerate the digitalization journey of Malaysian enterprises and our nation's own digital ambitions. By tapping into our combined core competencies and technical expertise, we aim to develop market-fit 5G solutions that demonstrate a deep understanding of the needs of enterprises and industries and the potential of 5G to drive growth and efficiency in Malaysia and beyond," said Goh Seow Eng, Chief Executive Officer of Maxis. The partnership will harness CMI's broad international reach and extensive information services alongside Maxis' strengths in fixed and mobile infrastructure, digital solutions, and its robust local enterprise client base. The MoU outlines several major initiatives, including the creation of private 5G networks, consultation and applications for 5G, smart park solutions, advancements in artificial intelligence, and collaborative R&D projects. The agreement

also emphasizes the exchange of technical expertise and the exploration of new market opportunities. This MoU is set to foster the development of innovative digital solutions and improve service offerings, expediting the rollout of 5G technologies in Malaysia and beyond. By pooling their resources and expertise, CMI and Maxis aim to drive significant progress in the telecom sector, enter new markets, and provide advanced solutions to a global audience.

China Mobile International, U Mobile Sign MoU for 5G Collaboration

U Mobile has announced a strategic partnership with China Mobile International (CMI), a global telecommunications operator, by signing a Memorandum of Understanding (MoU) to enhance 5G initiatives. The collaboration will focus on knowledge exchange regarding 5G deployment, innovation, and the adoption of business-to-business (B2B) solutions. U Mobile and CMI also plan to explore and develop cross-border 5G commercial models and enhance roaming infrastructure for seamless 5G connectivity for travelers. The MoU was signed by Wong Heang Tuck and Wang Hua, Chairman and CEO of China Mobile International, during the 2024 China Mobile SEA Cooperation Conference held in Bangkok.

Cisco's Inaugural State of Industrial Networking Report Highlights OT Security as a Key Focus for Global Organizations

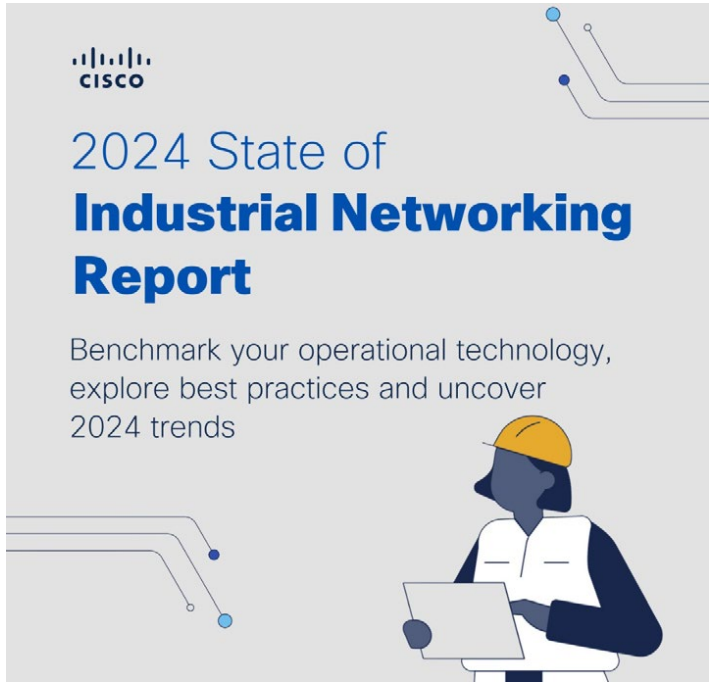
Cisco released its first State of Industrial Networking Report to highlight the key priorities in the evolving industrial networking landscape. The report highlights that Operational Technology (OT), once a secondary issue, is now a crucial focus for organizations globally. The report offers a comprehensive view of the challenges and opportunities organizations face in building secure and efficient industrial networking foundation. It also shows the dire need globally for robust security solutions tailored to the specific needs of industrial settings, as well as the potential benefits for those who can successfully address these challenges. "Operational technology, and specifically the network supporting industrial operations, has become a key differentiator for organizations globally," said Vikas Butaney, Senior Vice President and General Manager, Cisco Networking - SD-WAN, Multicloud and Industrial IoT. "This research spotlights how IT and OT leaders recognize that strengthening their OT security posture is critical to drive business

resiliency, improve efficiencies and prepare for the next wave of innovation with AI."

Key Trends and Solutions for a Resilient Industrial Network

Industrial networks are becoming more interconnected, with OT systems converging with enterprise IT, leading to a complex environment vulnerable to cyberattacks. Challenges such as outdated systems, a growing attack surface, and a strained workforce are making the situation worse. However, AI holds the potential to drive business growth for those who effectively leverage it to enhance industrial networks. Key highlights of the report include:

- Prioritize cybersecurity in OT plans: With 89% of respondents citing cybersecurity compliance as very or extremely important, organizations that neglect these strategies will waste energy, time, and money on attack mitigation—resources that could be better spent on innovation and growth in OT.
- Encourage IT/OT collaboration: A significant 41% of firms report that OT and IT teams work independently, highlighting the need for improved collaboration. To optimize and protect data and assets, a combination of human and organizational factors, along with integrated tech solutions, is essential.
- Leverage AI for competitive advantage: 48% of respondents view AI as the most significant technological advancement impacting industrial networking in the next five years, and forward-thinking OT leaders are using it to differentiate their companies and enhance product delivery. Organizations that fail to update their infrastructure to utilize AI for efficiency, data analysis, employee support, and cybersecurity will struggle to stay competitive as 49% expect AI to improve network management across IT and OT.



The Cisco 2024 State of Industrial Networking Report draws on data from a global survey of over 1,000 industry professionals across 17 countries and 20 sectors, including manufacturing, transportation, and energy. The findings represent insights from management to C-suite executives at companies with annual revenues exceeding $100 million.

Cisco and HTX Sign MOU to Pilot 5G and AI Technologies to Enhance Homeland Security

Cisco, the worldwide leader in networking and security, and HTX (Home Team Science and Technology Agency) announced the signing of a Memorandum of Understanding (MOU) to pilot 5G and AI technologies to enhance Singapore's homeland security. HTX Chief Executive M Chan Tsan and Cisco Executive Vice President and General Manager, Cisco Networking Mr. Jonathan Davidson signed the MOU at a ceremony at Cisco's global headquarters in San Jose, United States. Cisco and HTX will collaborate on projects to improve the HTX's 5G and AI capabilities. These projects aim to empower the Home Team to address evolving threats to public safety in Singapore. The collaboration will leverage Cisco's 5G-as-a-Service solution to develop and trial different 5G proofs-of-concept to improve public safety and security in Singapore. Both parties will also jointly innovate on AI security operations. Cisco will work with HTX to build a customized Security and Network Operations (AISecOps) platform that will be hosted on-premise alongside HTX's domain data. This will enable HTX to harness the power of generative AI and identify and address advanced cyber threats with greater effectiveness. HTX is the first organization and agency from Singapore to sign a MOU under Cisco's Country Digital Acceleration (CDA) program. Cisco's CDA program aims to stimulate global digitization. Currently, Cisco is working with national, state, and local governments in 50 countries around the world to accelerate their national digitization agendas, co-develop cutting-edge solutions, and deliver beneficial services to their citizens more effectively. Cisco's CDA programs have supported the creation of net new jobs, promoted GDP growth, and helped nurture innovation ecosystems.

Cisco Highlights Insights on AI Adoption for Businesses: From Strategy to Implementation

Artificial Intelligence (AI) is undoubtably a dominating topic of discussion, influencing both our daily lives and transforming the business landscape. As enterprises engage in a competitive digital arms race focused on AI, Cisco is committed to being a leader and partner in this field. We are at the forefront of the AI revolution utilizing our expertise in networking and cybersecurity to develop cutting-edge innovative solutions. Building an AI-mature organization requires defining a clear strategy, frequent communication, and setting measurable outcomes to optimize results and avoid common errors. A recent Gartner® report emphasizes the importance of a measured approach to AI adoption. Their AI adoption framework helps organizations avoid major pitfalls and maximize the chances of successful AI implementation. The framework encourages the use of the AI adoption curve to identify and achieve goals that increase AI value creation by solving business problems more effectively, faster, at a lower cost and with greater convenience.

The Gartner phased approach to AI adoption

AI can help classify and understand complex sets of data, automate decisions without human intervention, and generate anything from content to code by utilizing large repositories of data. However, underestimating the importance of prioritization can lead to delays and frustration.

Cisco's key takeaways from Gartner's AI phased approach include:

Phase 1. Planning: Start small, similar to building running endurance with short runs. Identify and recruit an internal champion to socialize efforts and gain support from key stakeholders. Establish three to six use cases with measurable outcomes that benefit the line of business.

Phase 2. Experimentation: Invest in the people, processes, and technology to ease transitions between phases, such as funding a Center of Excellence (COE) and teaching cloud AI APIs. Build executive awareness with realistic goals and be flexible to pivot as necessary.

Phase 3. Stabilization: At this stage, a basic AI governance model should be established, with initial AI use cases in production. The implementation team should have working policies to mitigate risks and ensure compliance. This st "pivotal point" is essential for expanding to more complex use cases. With strategic objectives defined, budgets in place, AI experts on hand, and technology at the ready, organizations can finalize the organizational structure and complete processes for the development and deployment of AI.

Phase 4. Expansion High costs are common at this stage of AI adoption as initial use cases demonstrate value and build momentum, leading to hiring more staff, upskilling employees, and incurring infrastructure costs. As the organization integrates AI in daily operations, it is vital to track spending, demonstrate progress against goals, and share outcomes with stakeholders to maintain transparency.

Phase 5. Leadership: AI success depends on fostering transparency, training, and shared usage across business units. Establish an "AI first" culture from the top down, where all workers understand AI's strengths and weaknesses to be productive and innovate securely.

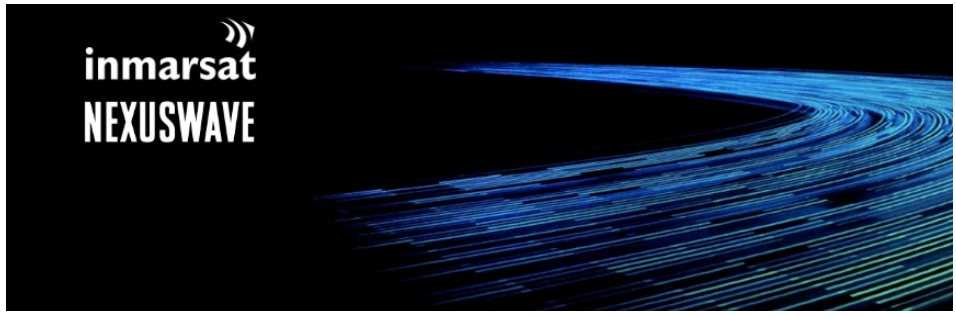
AI adoption varies across organizations

To avoid common mistakes, focus on creating a responsible use of AI that reduces technology risks and aligns with the resources currently available. Cisco's key recommendations include:

1. Choose the first project carefully, as most AI projects fail to deploy as projected.
2. Do not underestimate the time required for deployment.
3. Ensure your team has the necessary skills, capacity, and experience to take advantage of AI trends.

According to Cisco's AI Readiness Index in the UAE, half (50%) of respondents ranked improving the efficiency of systems, processes and operations among the top outcomes that companies are looking to drive through adoption of AI. This was followed by growing revenue and market share (48%) and improving ability to innovate at (47%). However, with only 25% of respondents in the UAE saying AI deployment has been given the highest priority for budget allocation and incremental budget funding, organizations need to think about how they plan to fund AI deployments over the long run.

Inmarsat Maritime Selects Eutelsat's OneWeb LEO Network to Support Maritime Connectivity Service



Eutelsat Group announces that Inmarsat Maritime, a Viasat company, has selected Eutelsat's OneWeb low Earth orbit (LEO) network for integration into its NexusWave fully managed bonded connectivity solution. The addition of Eutelsat's OneWeb LEO connectivity to Inmarsat's extensive maritime network and expertise underscores a shared commitment to delivering cutting-edge connectivity solutions that ad-

dress the evolving needs of the maritime industry and ensure that every vessel has access to reliable, high-performance broadband, no matter how remote its location. Commenting on the announcement, Cyril Dujardin, President of Eutelsat's Connectivity Business Unit said, "We are thrilled with the selection of our LEO service to be integrated into Inmarsat's maritime solutions. Our low latency, high-speed connectivity solution is delivering innovative new capabilities to ships big and small. Inmarsat Maritime's leadership in communications at sea, combined with our LEO capabilities, creates a powerful synergy that will set new standards for maritime connectivity." Ben Palmer, President, Inmarsat Maritime, added, "We are excited to be working with Eutelsat to integrate their OneWeb LEO capability into our NexusWave solution for the maritime industry. This announcement underscores our commitment to delivering robust, high-performance connectivity solutions that meet the diverse needs of our global customers." This announcement further showcases Eutelsat's strategy to collaborate with industry leaders, following similar agreements that highlight the growing demand for integrated multi-orbit solutions in the mobile connectivity market.

Eutelsat Group Secures Additional Launches in New Agreement with Mitsubishi Heavy Industries

Eutelsat Group and Mitsubishi Heavy Industries Ltd. ("MHI"), announce the signature of an agreement for multiple launches. Under the terms of the agreement, MHI will provide multiple launches by an H3 launch vehicle from 2027. This is the first agreement between Eutelsat and MHI, and the announcement cements the growing partnership between both companies. Eutelsat has consistently worked with leading launch providers to deliver its fleet into orbit and this latest agreement brings additional diversity and additional opportunities to launch Eutelsat's satellites in the coming years. Arlen Kassighian, Chief Engineering Officer of Eutelsat Group, said: "We are delighted to inaugurate our relationship with MHI with this multi-launch agreement. Access to space is critical for operators like Eutelsat, and we are excited to add MHI to our portfolio of launches, knowing that we can rely on its outstanding track record and technology to deliver our satellites into orbit." Iwao Igarashi, Vice President and Senior General Manager of Space Systems at MHI, said: "MHI

deeply appreciates the honor of entering into the first launch agreement with Eutelsat, the global leading satellite operator, and being selected as their launch partner to deploy their satellites. MHI is committed to delivering highly reliable and transparent launch services for its customers, that build market trust through the accumulation of successful launches."

Huawei and du Deploy First Indoor 5G-Advanced Network

du, from The Emirates Integrated Telecommunications Company (EITC), has become the first to successfully deploy Huawei's 5G LampSite X 'Digital Indoor Solution' using Three Carrier Aggregation (3CC) Technology in the Middle East. This achievement further strengthens du's leadership in the 5G user experience market, delivering a peak data rate of 5.1 Gbps. This is a key milestone in du's journey toward a 5G-Advanced network. In 2021, du, in collaboration with Huawei, pioneered the first ubiquitous indoor gigabit-per-second (Gbps) network. This new joint innovation aims to significantly enhance the capabilities of mobile networks, improving connectivity in indoor spaces such as shopping malls, hotels, airports, and residential buildings. 5G user traffic now accounts for over 60% of total mobile traffic, surpassing the combined traffic of 4G and 3G networks. Saleem AlBlooshi, Chief Technology Officer at du, stated: "We are committed to providing a high-quality user experience to our customers. Since the introduction of 5G in 2019, we have launched numerous innovative services. Among these, 5G home wireless services have been widely welcomed, and our market share in this area is far ahead. Introducing 5G Three Carrier Aggregation in our In-Building Solution (IBS) Network is a crucial step in ensuring a leading 5G user experience. It has enabled us to enhance our network's capabilities and quality, greatly improving customer satisfaction." Eric Bao, President of Huawei's Wireless Digital Indoor System Product Line, commented: "With the rapid development of 5G networks, the era of innovation represented by smart electric vehicles, humanoid robots, cloud mobile phones, and naked-eye 3D has arrived. It is critical for operators to provide indoor networks with greater capacity, higher performance, and energy-saving efficiency. As an industry-leading indoor solution, LampSite X assists operators in building indoor networks that offer both intelligence and exceptional performance to meet the explosive growth in service demand."

Huawei Launches F5G-A Series Products for Five Industrial Intelligence Scenarios

At HUAWEI CONNECT 2024, Huawei successfully held the optical summit themed "Accelerate F5G-A, Amplify Intelligence". At the summit, Huawei launched new F5G Advanced (F5G-A) products based on the "3 In 3 Out" trends, with an aim to boost industrial intelligence. "Facing the intelligent era, the optical industry has accelerated its '3 In 3 Out' trends," noted Bob Chen, President of Huawei Optical Business Product Line, at the summit. "More than 9000 all-optical campuses around the world have implemented Fiber-in Copper-out. In terms of fgOTN-in SDH-out, SDH has been replaced by fgOTN in industries such as electric power and transportation, and large-scale fgOTN deployment has been started. For Optical-sensing-in Hard-work-out, optical fiber sensing has been commercially used in more than 80 cases. Huawei calls on all industry customers and partners to seize new '3 In 3 Out' opportunities and accelerate industrial intelligence together.""Fiber-in Copper-out": For home network scenarios, Huawei launched a new Wi-Fi 7 ONT — OptiXstar EN8145 — to help ISPs upgrade its service package from 100Mbps to 1000Mbps level, providing users with ultimate Wi-Fi experience while supporting high-speed access of home storage. For campus scenarios such as classrooms and offices, Huawei has updated its FTTO 2.0 solution and launched the industry's first high-density and ultra-10Gbps optical terminal — OptiXstar P884E — achieving 12.5/25Gbps coverage. Four OptiXstar series Wi-Fi 7 optical terminals and optical gateways (including W617E) have been released, covering hospitals, hotels, and education network scenarios, to develop a new standard configuration for Wi-Fi 7 intelligent campuses. fgOTN-in SDH-out: For communication networks in industries such as electric power and transportation, Huawei launched the industry's first optical transmission product portfolio that supports the fgOTN standard in an E2E manner — OptiXtrans E6600/9600 — helping to build a solid and reliable communication network for these industries. In smart power distribution and consumption scenarios, Huawei released the high-speed power line communications (HPLC) dual-mode solution, which raises the meter collection success rate to 99.9%. For 300 households, this solution shortens the collection time from 15 minutes to 1 minute, achieving reliable and quick meter collection. All this drives the digital and intelligent upgrade of the electric power industry. Moreover, Huawei extends " fgOTN-in SDH-out" from WANs to data centers. For ultra-large-scale intelligent computing cluster network, Huawei launched OptiXtrans DC808, an all-optical switch, to address issues such as difficult expansion of traditional networks and low reliability caused by failure-prone optical modules. With the all-optical cross-connect OXC technology introduced to data center networks, the switch supports flexible expansion of networking capabilities, eliminates the need for optical modules, and cuts the fault rate by 20%. In addition, it also supports long-term smooth evolution from 400G to 1.6T. Optical-sensing-in Hard-work-out: Huawei also released an intelligent gas leakage detection product — OptiXsense ES100 — based on spectral sensing technologies to ensure urban gas safety. Huawei's solution improves the precision by 40%, prolongs the service life by 50%, and eliminates the need to replace batteries in 3 years. It has been in use in Chengdu Hi-Tech Zone for half a year, with its precision and reliability fully verified. We call on all industry customers and partners to join us in seizing new "3 In 3 Out" opportunities, and to accelerate industrial intelligence. Together, we can achieve win-win results in the intelligent era.

Huawei Announces Outstanding Partner Awards 2024

Huawei held the Global Partner Roundtable and Global Partners' Night, themed Grow Together, Win the Intelligent Era, on September 18, and presented the Huawei Outstanding Partner Awards 2024 to partners who have made outstanding contributions in different industries. This year, there were 14 award categories, with 90 partners being recognized. Among the awards, 60 were business awards presented to global partners who utilized Huawei's products to achieve success in their industries. The remaining 30 were technology awards given to partners who focused on Huawei's strategic products and solutions, collaborated on technological innovation, and made significant breakthroughs. During the award ceremony, David Wang, Huawei's Executive Director of the Board and Chairman of the ICT Infrastructure Managing Board, congratulated the award-winning partners and acknowledged the significant business opportunities and economic value brought about by digital transformation. He also emphasized the importance of developing the "Partner plus Huawei" system and further optimizing Huawei's processes and mechanisms to ensure partners are rewarded for their efforts to create a positive business cycle. He explained that the more that acceleration partners contribute, the greater benefits they should receive. He also noted that as association partners strengthen their capabilities, they stand to gain more. Both Huawei and its customers remain customer-centric. Huawei uses shared benefits as a bridge, integrity as a foundation, and rules as a guarantee. This allows Huawei and partners to grow together and help customers achieve business success. During the partner

roundtable, Huawei executives and 26 partners engaged in discussions about the opportunities and challenges presented by digital and intelligent transformation. Keynote speeches were delivered by a number of partners including Koçsistem, Linewell, and Neuxnet. Li Peng, Huawei's Corporate Senior Vice President and President of ICT Sales & Service, delivered opening remarks at the roundtable, saying, "We hope to continuously collaborate with capable and willing partners, combine the capabilities and experience of both parties, dive deep into industry scenarios, and develop tailored solutions that contribute to the successful digital and intelligent transformation of industries. Together, we can help customers succeed and partners grow their businesses." "Huawei values long-term relationships with its partners," Li continued. "Moving forward, we will continue to work openly with partners and developers, and follow the principle of shared benefits as a bridge, integrity as a foundation, and rules as a guarantee. Together, we can develop more targeted and scalable solutions, and drive success across global markets." Leo Chen, Huawei's Corporate Senior Vice President and President of Enterprise Sales concluded the roundtable, emphasizing the importance of Huawei-partner collaboration. Chen stated, "By leveraging each other's strengths and innovating side by side, we can better serve customers' differentiated needs and achieve shared success. We are committed to maintaining stable partner policies, fostering healthy and mutually-beneficial relationships, and ensuring that our partners gain real benefits." Chen continued, "Let's succeed together in the intelligent era."

Huawei Unveils Industry-Specific ICT Solutions at Its Kuwait Commercial Roadshow

Huawei, a global leader in information and communications technology (ICT), recently hosted the Kuwait edition of its Middle East & Central Asia (ME&CA) Commercial Roadshow in the St. Regis Kuwait. The company showcased its cutting-edge solutions designed to empower various strategically pivotal sectors in Kuwait. The International Data Corporation (IDC) forecasts that ICT spending in Kuwait will exceed $5.5 billion by 2024. With a strong history of collaboration in Kuwait spanning over a decade, Huawei has established itself as a key partner to local governments and businesses. This roadshow reinforces the company's unwavering commitment to supporting Kuwait's digital transformation, as envisioned in Kuwait Vision 2035. Kuwait's Vision 2035 outlines the country's plans for digital transformation and the adoption of smart and digital technologies to enhance services and efficiencies across key sectors. The roadshow brought together key decision-makers from the education, healthcare, real estate, and finance industries, as well as carriers, integrators, and consulting firms.

Participants were provided a platform to engage with and explore innovative ICT solutions across sectors and discuss commercial market strategies. The event is part of Huawei's broader strategy to accelerate digital transformation in the ME&CA region, focusing on small and medium-sized enterprises (SME) segments within key industries. In his opening address, Mr. Jeff Zhu, Huawei Kuwait CEO emphasized the importance of digital transformation for Kuwait, stating, "Digital transformation has evolved to become an integral part of business strategy, essential for driving growth and innovation. In today's dynamic landscape, embracing digital transformation is not an option but a strategic imperative. By adopting digital transformation strategies, businesses and government entities in Kuwait can unlock unprecedented growth opportunities, overcome challenges, build resilience, and enhance operations." The event highlighted Huawei's industry-specific solutions, each designed to address the unique challenges and opportunities within Kuwait's key sectors. Huawei experts presented industry-specific solutions, including the Huawei Smart Education Solution, Huawei Smart Healthcare Solution, Huawei Intelligent Real Estate Solution, and Huawei Intelligent Finance Solution. The company unveiled comprehensive offerings for Kuwait's government entities featuring its intelligent office systems, campus networks, and DCN-based lightweight data centers The Huawei Smart Education Solution features advanced network infrastructure, secure data centers, and smart classroom solutions, while the Huawei Smart Healthcare Solution consists of smart wards, medical imaging, and hospital network solutions. Huawei Intelligent Real Estate Solution includes Fiber To The Office (FTTO) solutions for real estate, and Huawei Intelligent Finance Solution features secure networks and storage solutions. At the Huawei ME&CA Commercial Roadshow in Kuwait, Huawei unveiled the HUAWEI eKit, a groundbreaking platform tailored for small and medium-sized enterprises (SMEs). This comprehensive solution integrates essential business functions, including marketing, transactions, and partner operations, offering SMEs a powerful toolkit to thrive in the digital age. The roadshow marked a new chapter in Huawei's commitment to Kuwait and its partners. Beyond commercial success, Huawei remains dedicated to investing in local initiatives, nurturing local ICT talent, and fostering sustainable partnerships to contribute to Kuwait's digital growth journey. At MWC 2024, Huawei signed an agreement with stc Kuwait to build 5.5G-based intelligent wireless networks and contribute to the development of the ecosystem. Huawei also teamed up with Zain to establish an Artificial Intelligence (AI) Center of Excellence, showcasing the company's commitment to supporting the telecommunications sector in Kuwait. Furthermore, at the recently held regional finals for Huawei's Seeds for the Future 2024 competition, Kuwaiti students claimed first place and advanced to the global Tech4Good competition.

Huawei Unveils Cutting-Edge ICT Solutions to Accelerate Iraq's Digital Transformation at Baghdad Roadshow

Huawei, a global leader in information and communications technology (ICT), kicked off its Middle East & Central Asia Commercial Roadshow in Baghdad recently, marking a significant milestone in Iraq's journey towards digital transformation. The event brought together over 200 industry leaders, customers, and partners to explore innovative solutions that will shape the future of Iraq's digital landscape. The roadshow demonstrated Huawei's commitment to empowering key sectors of the Iraqi economy through tailored ICT solutions. The company showcased a comprehensive suite of technologies designed to revolutionize education, healthcare, government services, real estate, and finance. In the opening speech, Mr. Alex Zhang, Vice President of Enterprise Business for Huawei Middle East & Central Asia, underscored the importance of digital transformation for Iraq, stating, "Digital transformation is not just a strategic imperative for Iraq but a pathway to sustainable growth. By leveraging advanced technologies and building strong partnerships, we can overcome challenges and unlock unprecedented opportunities for progress in government, education, healthcare, real estate, and financial services. Huawei is committed to investing in Iraq's ICT infrastructure and fostering a robust partner ecosystem to drive this transformation." Rafid Abbas Khader, Business Environment Subsidiary Board Director, delivered a keynote titled "In Iraq, for Iraq". He said, "Huawei has operated in the Iraqi market for over 20 years and is dedicated to becoming a major contributor to the national digital economy. With an open mind and consistent cooperation strategy, Huawei will work side by side with all partners and customers, pursuing shared growth and success and beginning a new chapter for a thriving digital economy in Iraq." The event highlighted Huawei's industry-specific solutions, each designed to address the unique challenges and opportunities within Iraq's key sectors. In education, Huawei presented an integrated approach to creating dynamic learning environments, combining robust network infrastructure with secure data centers and interactive smart classroom technologies. For the healthcare sector, the company demonstrated how its smart wards system, advanced medical imaging solutions, and hospital network infrastructure can significantly enhance patient care and operational efficiency. Huawei's financial sector offerings focus on fortifying data security and operational efficiency, providing financial institutions with the tools to drive economic stability and growth.

In the government sector, the company showcased how its intelligent office systems, advanced campus networks, and streamlined data centers can transform public services and decision-making processes. For the real estate industry, Huawei presented innovative solutions for smart property management, emphasizing sustainability, energy optimization, and enhanced tenant experiences. Jason Yang, Director of Commercial Business Huawei ME&CA, underscored the immense potential for digitalization in Iraq's government and enterprise sectors. "Huawei's strategic investments, robust partnerships, and partner-led approach position us at the forefront of Iraq's digital revolution," Yang asserted. The roadshow also marked the debut of HUAWEI eKit, a groundbreaking platform tailored for small and medium-sized enterprises (SMEs). This comprehensive solution integrates essential business functions, including marketing, transactions, and partner operations, offering SMEs a powerful toolkit to thrive in the digital age. The event's success serves as a testament to Huawei's unwavering commitment to driving digital transformation in Iraq, promising a future where technology empowers every individual, every business, and every sector of the economy.

Huawei Releases Exploring the Intelligent World Series Reports

At the recently concluded Huawei Connect 2024 global event held in Shanghai Huawei released a set of reports on exploring the intelligent world. The reports provide references for the development of the ICT industry. David Wang, Huawei's Executive Director of the Board and Chairman of the ICT Infrastructure Managing Board, said in his speech, "The digital and intelligent revolution will redefine all economic activities, including production, distribution, exchange, and consumption. This will enable the digital economy to become a major engine of global economic growth. ICT infrastructure is a key cornerstone of the digital economy. Huawei will continue to promote the innovation of key technologies, including connectivity, cloud computing, and AI, and will work together with industry players to seize new opportunities and create a new era of a thriving digital economy." Jeffrey Zhou, President of ICT Marketing at Huawei, gave an overall briefing on Huawei's latest achievements in exploring the intelligent world and released the new Intelligent World 2030 and Striding Towards the Intelligent World reports. The Intelligent World 2030 describes Huawei's outlooks for the future ICT industry, including future scenarios, industry spaces, and technological characteristics. The Striding Towards the Intelligent World provides innovation paths for ICT industry development. The Global Digitalization Index (GDI) measures the impact of ICT industry maturity on the economy. Zhou said, "In the era of the digital economy, data is becoming a key factor in the development of the digital economy. Continuous innovation in digital infrastructure is needed to balance the supply and demand of data. Ubiquitous connectivity serves as the main artery of the digital economy. A strong digital foundation will enable the development of the digital economy and green energy will become its engine. We hope that the Exploring the Intelligent World Series Reports will provide countries with quantitative data to inform their decision-making and contribute to a prosperous digital economy around the world." In his keynote speech, "Unleashing Intelligence with New Infrastructure," Huawei's Director of the Board and President of ICT Products & Solutions Yang Chaobin said: "Huawei is committed to providing the ICT products and technologies needed to build a

new type of intelligent infrastructure for numerous industries. We will continue working with our partners to provide high-quality enterprise connectivity, help break down data siloes, jointly develop enterprise AI solutions, and accelerate AI application in industries." Yang discussed the last set of offerings during his speech: Ascend AI hardware and software products that partners can combine with their own different-sized models to develop out-of-the-box, scenario-based enterprise AI solutions. These offerings include AI frameworks, fine-tuning kits, toolchains, and inference engines. Over 20 partners have already used these offerings to develop more than 100 enterprise AI solutions for different scenarios. At the optical summit themed "Accelerate F5G-A, Amplify Intelligence", Huawei also launched new F5G Advanced (F5G-A) products based on the "3 In, 3 Out" trends, with an aim to boost industrial intelligence. Huawei also released an intelligent gas leakage detection product — OptiXsense ES100 — based on spectral sensing technologies to ensure urban gas safety. Huawei's solution improves the precision by 40%, prolongs the service life by 50%, and eliminates the need to replace batteries in 3 years.

Microsoft Restructures to Offer AI Transparency

In a presentation, Microsoft explained it had restructured how it will report financial results for some business units, with revenue from AI and voice-based technology services now falling under its Productivity and Business Processes segment, which also includes the Office suite of apps. Previously, AI came under its Intelligent Cloud division. Meanwhile, search and news advertising revenue will now be reported within its Azure unit. Microsoft explained the move has been made to ensure its reporting structure reflects how its businesses are managed. As a result, the company revised its unit forecasts for fiscal Q1 2025, covering the three-month period ending 30 September 2024. Revenue from its productivity segment will come in at between $27.6 billion and $28 billion, up from a previous range of $20.3 billion to $20.6 billion. Intelligent Cloud is now expected to drop from a range of $28.6 billion to $28.9 billion to between $23.8 billion and $24.1 billion. Reuters reported Microsoft is one of the few big technology companies to break out its AI earnings and it, along with Google, is beginning to face pressure from investors to show big bets in the technology will bear fruit. Notably, technology investor Elliott Management earlier this month claimed AI was overhyped, with many touted applications not ready for commercial use.

Nokia and OTE Group Set Dual World-Record Optical Transmission Rates Over Ultra Long Distances

Nokia together with OTE Group, a member of Deutsche Telekom (DT), announced two new optical transmission rate world records using Nokia's sixth generation of super-coherent Photonic Service Engine (PSE-6s) technology. The field trial, which used Nokia's 1830 PSI-M optical transport solution, ran over OTE Group's national dense wavelength division multiplexing (DWDM) network, connecting IP Core data centers and routers in Greece. Two optical nodes were installed in Patra and Athens to boost performance over the specific fiber optic routes using PSE-6s coherent optics. As a result, Nokia and OTE achieved record-breaking speeds in a live network in real conditions, transmitting 800Gbps on a single channel over 2580 km, and 900Gbps over 1290 km. This was achieved over a DWDM link transmitting a full load of DWDM channels over 4.8THz of spectrum and supported a total network capacity of 25.6 Tbps per fiber. The companies also demonstrated 1.2 Tbps transmission on a single channel over 255 km. Running an optical solution with Nokia's PSE-6s allows the increase of network capacity and spectrum utilization, reduces energy consumption per bit by 40%, and minimizes the network's carbon footprint. Michalis Papamichail, OTE Group Core Network Devops and Technology Strategy Director, said: "We are proud to have developed, constructed and operate one of the most advanced long-haul backbone DWDM networks globally. This network has demonstrated world-record performances, as evidenced by our recent field trial. Our aim is to deliver top tier performance in the most cost-effective manner. In collaboration with our partner, Nokia, we look forward to further advancements in our DWDM technology." James Watt, Senior Vice President and General Manager of Nokia's optical business, commented: "Our relentless pursuit of advancing optical technology has led to a new pinnacle with the PSE-6s field trial, establishing a groundbreaking industry standard and underscoring our leadership in delivering high-capacity, long-haul DWDM transmission solutions. It's incredibly gratifying to achieve these dual world records in collaboration with our longstanding customer, OTE, who is helping to strengthen the Greek economy through its advanced network infrastructure. Together, we are contributing to a global legacy that elevates data transmission capabilities to meet the surging demands of social media, cloud computing, and video streaming."

Nokia Launches New Tools for Fiber and Fixed Wireless Deployments

Nokia launched two new offerings for broadband providers: the Broadband Easy Connect service and new 5G fixed wireless access (FWA) devices. Broadband Easy Connect is a cloud-based platform that automates the connection from a broadband provider to the end customer. In a statement about the new service, Nokia said, "Over 30% of home connections are not executed to plan due to manual procedures, inaccurate data, and tight schedules, leading to multiple truck rolls." Broadband Easy Connect automates certain steps in the process of connecting a user, including scheduling, dispatching technicians, and more. The tools also offer automated service activation and end-to-end line testing. "With Broadband Easy Connect, we make it simple, fast and cost-effective for operators to set up home fiber installations," said Sandra Motley, President of Fixed Networks at Nokia. "This means happier customers and a growing fiber business. Operators can get it right the first time 95% of the time and cut repeat visits in half, speeding up fiber deployment by 20%." Broadband Easy Connect is a subscription-based service. Nokia's new 5G Fixed Wireless Access outdoor receiver uses high-gain antennas to deliver fixed wireless broadband. Nokia said the receiver will improve signal efficiency as much as 60% while still offering the convenience of self-installation. At the same time, the company has introduced an indoor gateway to allow end users to experience Wi-Fi 7 speeds via fixed wireless. Nokia said the product, called the FastMile indoor 5G Gateway 7, will improve capacity and coverage as much as 35%. "Using Fixed Wireless Access to connect end customers to fast internet access requires more than just one type of device," said Dirk Verhaegen, Vice President of Broadband Devices. "Nokia's FastMile solutions provide operators with options, bringing fast, reliable broadband to people no matter where they live — whether it's in bustling cities, quiet suburbs, or even remote rural areas." Both Broadband Easy Connect and the new 5G FWA devices are intended to bring faster connections to consumers more easily.

Nokia and stc Group Optimize Network with AI-powered MantaRay Cognitive SON Solution in Saudi Arabia

Nokia announced that it has successfully deployed its MantaRay Cognitive SON, the AI-powered self-organizing networks solution, in stc Group's (stc) commercial network for the first time. MantaRay SON is an industry-leading network optimization and automation platform that uses self-configuring modules to boost network performance and efficiency. It can be tailored and deployed to optimize specific software applications and to address unique operational challenges. Cognitive SON is an AI-powered software feature of MantaRay SON that enables autonomous RAN operations. Nokia created a customized solution for stc. Cognitive SON was implemented in a period of high traffic, during which it processed over 10,000 actions, resulting in an increased utilization rate of approximately 30 percent on loaded cells and 10 percent average improvement on user throughput. Despite traffic increasing by 40 percent during this period, stc's network successfully maintained consistent connectivity. Autonomous RAN operations also reduced manual work and improved network quality. The development of an AI-powered network module expands stc's suite of advanced AI solutions. It offers a wide range of AI-driven capabilities that help accelerate digital transformation and enable sustainable growth, including enhancing radio network energy efficiency, which resulted in a 13 percent reduction in energy consumption across stc's 4G and 5G networks in 2023. By 2025, stc's AI-powered products will cover over 200 systems, enabling further cost efficiencies. Haithem Al Faraj, Chief Technology Officer at stc Group said: "stc and Nokia are pioneering a new era where Artificial Intelligence revolutionizes the telecom industry. This technology not only minimizes human error and improves quality but also allows networks to operate autonomously and efficiently, while humans remain essential in guiding and maximizing the outcomes from machine learning." Mikko Lavanti, Head of MEA at Nokia commented: "Through our collaboration with stc Group, Nokia is transforming the optimization of radio networks with the integration of Artificial Intelligence. Our MantaRay Cognitive SON solution, equipped with sophisticated AI algorithms, represents a quantum leap in autonomous network operations – a global first in its deployment by stc Group. This AI-driven innovation has redefined standards for network performance, ensuring robust and consistent service for customers even during peak usage periods. Together with stc, we will continue exploring new use cases for Cognitive SON to achieve further efficiency enhancements."

Nokia Launches Industry's Most Modern Data Center Automation Platform Built for the AI Era

Nokia announced the availability of its AI era, Event-Driven Automation (EDA) platform. Nokia EDA raises the bar on data center network operations with a modern approach that builds on Kubernetes to bring highly reliable, simplified, and adaptable lifecycle management to data center networks. Aimed at driving human error in network operations to zero, Nokia's new platform reduces network disruptions and application downtime while also decreasing operational effort up to 40%. Ongoing digital transformation and the rise of AI applications, coupled with data center workforce shortages and skills gaps, are driving webscalers, enterprises, and service providers to scale and adapt their data center infrastructures to meet exponential demand and evolving workload requirements. As more critical workloads move to the cloud, interruptions in cloud services can have significant economic, safety and social implications. Increasing automation in cloud and networking operations is essential to respond to demand while reducing service disruptions. Despite the benefits of network automation, a study by Enterprise Management Associates shows that most organizations have automated less than half of their data center network management tasks. Barriers to adopting automation include a lack of scalable, open, multi-vendor solutions; legacy systems and complexity requiring skilled resources; and a lack of trust in fully automated systems delivering the right outcomes. Nokia's new infrastructure automation platform is designed to overcome these barriers while providing a new path to addressing key challenges in today's data center network environment. The risk of human error and associated network downtime is mitigated through EDA's integrated digital twin, pre- and post-deployment checkpoints, highly responsive multi-dimensional observability, and a robust CI/CD methodology with revision

control. Simplicity in operations is enabled through intent-based declarative automation, GenAI assistance and a low-code/no-code approach to building customized dashboards. EDA easily integrates into multi-vendor, multi-domain environments with support for a wide range of IT service management systems, event notification systems, and cloud management platforms. As a modern software platform, EDA builds on Kubernetes, a cloud automation and orchestration environment with millions of users worldwide, for its cloud-based microservices architecture. The platform adopts Kubernetes constructs to bring an intent-based, event-driven, and declarative approach to network automation, and complements it with network-wide transactions. Further, through leveraging Kubernetes resource model, APIs and toolchain, EDA enables network resources to be easily consumed in the same fashion as other data center applications. EDA is available through on-prem and cloud-based "as-a-service" subscription models. The EDA app store, a cloud-inspired approach, allows operators to easily customize their automation environment. The new Nokia platform complements the company's Service Router (SR) Linux network operating system and extensive portfolio of data center switching and routing platforms to provide webscale and enterprise organizations access to fully modernized data center networks. By breaking down barriers for organizations to adopt automation in the data center, EDA ushers in a new era of highly reliable, simplified, and adaptable lifecycle management to data center networks designed for an AI world. Roy Chua, Founder and Principal at AvidThink, said: "Nokia's decision to leverage Kubernetes for its EDA platform is a smart move. Enabling the network to be managed and orchestrated in the same manner as compute will be a ground-breaking innovation for data center operations staff. EDA's focus on enabling network-wide transactions at speed with enhanced reliability is a key differentiator for automation in swiftly evolving, business-critical data center environments." Vach Kompella, Senior Vice President and General Manager of IP Networks business at Nokia, said: "Our next generation EDA platform is a game-changer for data center networks. By leveraging the power of Kubernetes, we are enabling our customers to access a modern approach to network automation that significantly reduces operational effort and helps eliminate human error. This is a major step forward in our mission to deliver the world's most trusted networks."

Ooredoo Kuwait Secures Two Wins in the Stevie Awards for Technology Excellence and International Business

Continuing its legacy of leadership in the global telecommunications industry, Ooredoo Kuwait, the pioneer in telecommunications and integrated digital solutions, has added two prestigious titles to its growing list of accolades at this year's Stevie Awards round. The company's relentless pursuit of innovation in 5G technology and its application in real-world scenarios have earned it top honors in the first edition of the Stevie Awards for Excellence in Technology, as well as Stevie's annual International Business Awards. Ooredoo Kuwait was awarded the Technical Innovation in Communication Technology award, in the new Technology Excellence Awards iteration introduced in Stevie's extended list of award programs. This award celebrates Ooredoo's exceptional performance and innovative approach to integrating cutting-edge technology into its services, particularly in the realm of 5G. In addition, the company was honored with the "Year's Achievement in Technology Innovation" award, solidifying its role as a key driver of digital transformation and a leader in advancing 5G capabilities across Kuwait. The company's nominations in these highly competitive categories highlight its significant contributions to promoting digital innovation and enhancing the 5G network's reach and impact nationwide. Ooredoo Kuwait's comprehensive and forward-thinking solutions have not only expanded the scope of 5G services but also underscored its commitment to societal advancement through technologies like the Internet of Things (IoT), which play a crucial role in sustainable development. These accolades also reflect Ooredoo Kuwait's influential role in the progress of vital sectors within the country, aligning with Kuwait's Vision 2035. The company's efforts in driving technological innovation contribute to the national development plans, positioning Ooredoo Kuwait as a leader on the international stage. The Stevie Awards, known globally as one of the most prestigious honors in the corporate world, recognize outstanding achievements across various industries. Judged by an international panel of experts, these awards set a benchmark for excellence and innovation, providing a stamp of trust and quality in corporate performance. The Stevie Awards jury commended Ooredoo Kuwait's advancements in 5G technology, noting its transformative potential across multiple industries and its significant impact on communication and economic growth in Kuwait and the broader region. The jury also

highlighted Ooredoo Kuwait's leadership in providing innovative digital solutions that cater to both individuals and enterprises, from unified communications and secure, high-speed internet services for businesses to IoT, cloud services, and beyond. Moreover, the jury emphasized Ooredoo Kuwait's pivotal role in advancing key sectors such as tourism, education, entertainment, and especially small and medium-sized enterprises (SMEs), which remain a cornerstone of Ooredoo Kuwait's long-term strategy. The recognition from the Stevie Awards further illuminates Ooredoo Kuwait's unique position and its contributions to the telecommunications sector globally. It also reflects the company's forward-thinking approach and its readiness to embrace future challenges and opportunities. Winning the Stevie Awards consecutively is a testament to Ooredoo Kuwait's unwavering commitment to excellence and innovation. It underscores the company's dedication to continuously developing and offering integrated, pioneering services that enrich people's digital lives while contributing to the urban development of Kuwait. Finally, Ooredoo Kuwait's rapid advancements in telecommunications technology have been crucial in meeting the stringent criteria of the Stevie Awards. These achievements not only keep the community at the forefront of the latest technological trends but also prepare Kuwait for a new era of technological progress and industrial renaissance, driven by the potential of local talents and the expertise of its workforce.

Ooredoo Kuwait Celebrates Public/Private Partnership Milestone with the Success of Digital Platform

Telecommunications leader and pioneer of digital solutions, Ooredoo Kuwait, proudly celebrates the remarkable success of the new digital entertainment platform in Kuwait, [51] - considered a collaborative initiative between the Kuwaiti Ministry of Information and FASTtelco, a subsidiary of Ooredoo Kuwait. Launched just 90 days ago as a trial broadcast, the platform has captivated millions of viewers from 186 countries, tuning in to watch content from Kuwait's TV and radio. Ooredoo Kuwait recently revealed that the platform garnered over 6 million views, driven by the broadcast of the 2024 Elite Football Championship held in the United States and the launch of the new run of the Ministry of Information's TV programs. This achievement underscores the ministry's strategic prowess in curating and diversifying content to attract a wide audience from Kuwait, the Gulf region, and the broader Arab world. It also highlights the success of FASTtelco in managing the platform's technological infrastructure, meeting the high demand for viewership with seamless efficiency. The company emphasized that reaching millions of viewers across 186 countries is not merely a record-breaking feat, but a testament to Ooredoo Kuwait's pivotal role in shaping the future of digital solutions through contributing to [51]. Through its technological arm, FASTtelco, Ooredoo Kuwait has positioned itself at the forefront of digital transformation, making cutting-edge technology accessible to all. Ooredoo Kuwait further highlighted that its substantial investment in digital infrastructure and ongoing upgrades to align with the latest communication and internet technologies, have been instrumental in platform [51]'s smooth operation. This robust infrastructure has enabled the platform to deliver live streams to millions of viewers without any interruptions, while ensuring the highest levels of cybersecurity protection. With the successful launch of digital platform, [51], Ooredoo Kuwait exemplifies its commitment to supporting Kuwait's national development goals, particularly in line with "Kuwait Vision 2035". The company strives to achieve this by advancing the technical infrastructure of Kuwaiti media and transitioning it into the digital era. It serves to mention that platform: [51], offers everything from live broadcasts of TV channels and radio stations to on-demand viewing services, all while maintaining a distinguished level of content diversity. The [51] platform, named as such to commemorate the year Kuwait Radio was launched, stands as a pioneering public/private partnership initiative within the Gulf media landscape. It is the first platform of its kind dedicated to showcasing Kuwaiti media productions, rich in historical and artistic heritage, alongside the latest contemporary works, offering an exclusive and enjoyable viewing experience for audiences worldwide.

PCCW Global

Chinese LEOsat Player GalaxySpace Expands Reach with PCCW Global

Chinese LEO satellite contender GalaxySpace has signed a deal with Hong Kong carrier PCCW Global to expand its market reach overseas by integrating its LEOsat connectivity with PCCW's worldwide network. GalaxySpace designs and manufactures its own LEO satellites. The company currently has a test constellation of seven LEO satellites in orbit, and has said the constellation will eventually comprise up to 1,000 satellites. One of its satellites in orbit is a stackable flat-panel satellite launched in July last year. The satellite – which is designed to support direct-to-mobile 5G communications – sports flexible solar wings and a payload supporting Q-band, V-band and Ka-band communications. According to GalaxySpace, the test constellation – dubbed "Mini Spider" – has completed multiple satellite Internet application verifications, including what it claims is China's first integration test of LEO satellites with 5G private networks. Under a memorandum of understanding signed on Thursday during a Belt and

Road summit in Hong Kong, GalaxySpace and PCCW Global will collaborate to deliver LEO satellite connectivity to consumers, enterprises and government customers. The enterprise segment potentially includes mobile operators looking to expand their coverage in remote areas. GalaxySpace co-founder and VP Isabel Liu said that while the collaboration will initially focus on Hong Kong, "[we] will continue to expand our services and partnerships in Belt and Road countries." Over 145 countries have signed MoUs joining China's Belt and Road initiative, most of them developing markets in Sub-Saharan Africa, Middle East & North Africa, Latin America & Caribbean, Southeast Asia, East Asia and Central Asia, among others. The deal gives GalaxySpace access to PCCW Global's international network that connects more than 3,000 cities across the Americas, Europe, Africa, the Middle East and Asia-Pacific. In turn, PCCW Global gets to add LEO satellite connectivity to its portfolio, said PCCW Global's co-CEO Frederick Chui. "This collaboration combines fixed network and next-generation satellite technologies to deliver more flexible connectivity solutions," he said in a statement. "By integrating GalaxySpace's cutting-edge LEO satellite technologies with our platforms, we are enhancing our capabilities to support new applications, which require high speed, low latency and ubiquitous satellite connectivity." "Looking ahead, we are accelerating direct-to-sell satellite research and technical verification," Liu said in a statement. GalaxySpace is one of several emerging contenders from China in the LEO satellite gold rush. Geespace – a subsidiary of Chinese carmaker Geely – plans to deploy 72 LEO satellites by 2025 for the first phase of its constellation, and currently has 30 in orbit. Shanghai Spacecom

Satellite Technology (SSST) plans to build its G60 Starlink constellation of 15,000 LEO satellites by 2030, although the launch of its first batch of satellites last month reportedly ended badly when the Long March 6A carrying the payload broke apart. Meanwhile, state-owned China Satellite Network Group has been planning to build a constellation of 13,000 LEO satellites under the "Guowang" project since 2021, although no satellites for Guowang have been launched yet. According to the Carnegie Endowment for International Peace, China's race to catch up with Starlink and similar services appears to be motivated in part by the potential military advantages of owning its own LEO networks, and partly by its potential as a tool for geopolitical influence.

Salam Taps Oracle for Managed Services

Salam, a leading Saudi telecom provider, has awarded Oracle a managed services agreement to support its ongoing digital transformation. The collaboration will help Salam expedite

operational excellence and enhance the experience it provides customers. These efforts will also further Salam's contributions to the Kingdom's Vision 2030 mission, which includes making Saudi Arabia a more connected and digitized nation. Oracle Communications Consulting will provide critical support and guidance for managed IT operations, performance management, and service quality improvement. Using an Information and Communication Technology (ICT)-focused approach, Oracle will help Salam increase operational efficiencies, proactively identify and address potential issues, and enable seamless service delivery to its end customers. Salam recently implemented components of Oracle Cloud Scale Monetization and Oracle Unified Operations, plus Oracle Sales CRM, to replace its legacy systems with a modular pre-integrated stack. This integration helps avoid the costly and time-consuming process of complex integrations with a high level of customization. With Oracle, Salam can launch, orchestrate, and monetize new offerings as the market demands. Future phases will take advantage of other Oracle Communications solutions to fast-track new digital services, such as 5G-enabled streaming, AR/VR gaming, and IoT-connected devices.

Ahmed Al-Anqari, CEO of Salam
Oracle's technologies and managed services are accelerating our time to market for 5G. As a Saudi-born company, Salam is at a digital transformation milestone in its journey. Our focus is on contributing to the advancement of KSA's ICT sector by enhancing our managed services among many other strategic initiatives. This will enable us to better serve the unique demands of our broad and growing customer base and be future-proof starting today.

Ajay Goyal, group vice president, Oracle Communications
Our close collaboration with Salam will help to diversify the company's revenue streams and strengthen its reputation as an innovator in the Middle East. In the fast-changing telco landscape, a cohesive managed services approach to systems, processes, and integrations is critical to the delivery of profitable services and, ultimately, a superior customer experience. We are dedicated to supporting Salam's business transformation goals by providing exemplary operational service, and product and network expertise.

Salam and Emaar Executive for Information Technology Sign MoU to Enhance Collaboration and Explore Potential Opportunities in Telecommunications and IT

Salam, a leading telecommunications provider in Saudi Arabia, and Emaar Executive for Information Technology have signed a Memorandum of Understanding (MoU) aimed at enhancing collaboration and exploring potential opportunities in the fields of telecommunications and information technology. This agreement is designed to leverage the capabilities of both companies in the design, development, and maintenance of telecommunications networks, security systems, and data centers, in addition to offering a range of services including internet, communications, cybersecurity, and satellite services. The MoU outlines several key areas where the two companies will strive to achieve the highest levels of excellence and quality in all joint projects. As part of this agreement, the parties will collaborate on providing a variety of services, including the development of network routing solutions, data center networks, collaboration and video conferencing solutions, and wireless solutions. Additionally, the collaboration will extend to areas such as design, active support, and maintenance, as well as data center services including UPS, cooling, electrical and mechanical systems, data center design and support, operations and maintenance, white space management, and ELV design and maintenance, alongside infrastructure preparation for buildings and sites, including surveillance cameras,

security systems, and necessary system connections. For its part, Salam will provide internet and communication services, local and international connectivity, satellite services (VSAT), cybersecurity, managed services, voice services (SIP), and cloud services. Commenting on the MoU signing, Eng. Ahmed Al-Anqari, CEO of Salam, said: "This agreement represents an important step towards enhancing our collaboration with Emaar Executive for Information Technology. We are committed to delivering innovative telecommunications solutions that meet market demands and contribute to achieving the goals of Saudi Vision 2030. We believe this partnership will lead to the development of pioneering projects in the telecommunications and IT sectors, empowering both public and private sector initiatives across various fields." Abdullah Mohammed Al-Maamer, CEO of Emaar Executive for Information Technology, added: "We are pleased with this partnership with Salam. The MoU is a first step towards implementing joint projects that aim to foster innovation and growth in the telecommunications and IT sectors in the region.

Digicel Pacific Network Uses SES satcoms for Disaster Recovery

Highlighting an increase in natural disasters in the Pacific Region, Digicel Pacific and SES have announced an agreement to bolster Digicel Pacific's network with SES's service to enable critical communications to be restored quickly in the event of natural disasters. This agreement is an extension of the companies' long-standing partnership. Following the earthquake that hit Tonga on 26 August, Tonga Domestic Cable Extension (TDCE), the island nation's only domestic subsea cable connection, was damaged. Through SES's satellite service, Digicel Pacific was able to restore inter-island voice, SMS, and data services on the islands of Vava'u within six hours. Digicel Pacific regional hub markets CEO Shally Jannif explains: "The expanded agreement with SES and the use of its O3b mPOWER network will give the nation of Tonga greater peace of mind that, in the event of a significant disaster, we will have the ability to access a large amount of low-latency, high-throughput connectivity." Indeed, SES says of O3b mPOWER: "Our next-generation MEO constellation delivers industry-leading throughput, latency and flexibility backed by ironclad service level agreements." Jannif continues: "Being able to implement disaster recovery networks quickly after the recent earthquake enabled

people to get back online and assure their loved ones of their safety. At the same time, it also enabled local business to get their operations back up quickly, minimizing the potential disruption to their businesses."

stc Bahrain Expands Cybersecurity Offerings to Empower Enterprises and SMEs on Their Digital Transformation Journeys

In a strategic move to fortify the cyber resilience of Bahrain's business ecosystem, stc Bahrain, a world class digital enabler, announced the expansion of its comprehensive cybersecurity portfolio to support large enterprises and SMEs in Bahrain on their secure digital transformation initiatives. stc Bahrain is launching two new categories of specialized cybersecurity services designed to safeguard businesses in Bahrain against the evolving threat of cyberattacks. This decisive action underscores the company's unwavering commitment to equipping organizations with the advanced tools and expertise needed to thwart increasingly sophisticated cyber threats. These solutions include DDoS Protection, powered by Juniper Corero, which shields businesses from disruptive DDoS attacks to ensure uninterrupted operations; Firewall, utilizing Fortinet technology, to provide advanced network firewall protection and access control; and Web Protect, powered by Cisco Umbrella, which offers comprehensive security against web-based threats. In addition to protecting from internet-based threats, stc Bahrain has also introduced a suite of services aimed at helping organizations understand, manage, and mitigate their overall cyber risk. The Security Operation Center (SOC), provides 24/7 security monitoring, analytics, and expert-led incident response. Network Detection and Response, utilizing Darktrace's AI, delivers real-time visibility and autonomous threat detection. Endpoint Detection and Response, enabled by CrowdStrike, offers protection from sophisticated cyber threats. Email Security, powered by Fortimail, safeguards against phishing, spam, and malware. Through Yogosha, stc Bahrain offers Penetration Testing to identify IT infrastructure vulnerabilities. Moreover, the Secure Service Edge service, powered by Zscaler, provides comprehensive cloud-delivered security for users, apps, and data. "With cyberattacks on the rise, stc Bahrain is committed to providing organizations across Bahrain with the most advanced cybersecurity solutions available," said Mr. Hesham Mustafa, Chief Business Officer, at stc Bahrain. "Through strategic partnerships with industry leaders like Cisco and Fortinet, we offer a comprehensive suite of services that deliver proactive threat mitigation, enhanced visibility, and cost-effective security, ensuring a safer digital landscape for Bahrain's business ecosystem." As a leading managed service provider and telecommunications company, stc Bahrain is dedicated to addressing the most pressing cybersecurity challenges facing organizations today. Through its comprehensive cybersecurity solutions and secure internet connectivity services, stc Bahrain is taking a leadership role in providing a secure and seamless online experience for businesses in Bahrain.

Subex Recognized in the 2024 Gartner® Magic Quadrant™ for AI in CSP Customer and Business Operations Report

Subex, a leading global provider of AI-powered solutions for the telecommunications industry, announced its inclusion in the 2024 Gartner Magic Quadrant for AI in CSP Customer and Business Operations report. We believe that this recognition marks a significant milestone for Subex, highlighting its commitment to delivering innovative AI solutions that empower Communication Service Providers (CSPs) to thrive in the digital age. According to Gartner, "This Magic Quadrant helps communications service providers identify and evaluate AI vendors for their customer and business operations. It will guide CSP CIOs and technology leaders toward the right AI vendor choices in a rapidly evolving market." According to us Subex's inclusion in the Magic Quadrant underscores its position as a key player in the AI landscape for CSPs. For many years, Subex has been at the forefront of AI innovation in the telecommunications industry, providing cutting-edge solutions that address complex challenges such as fraud detection, customer churn prediction, network optimization, and revenue assurance. Leveraging machine learning and automation, Subex empowers CSPs to make data-driven decisions, streamline operations, and achieve significant improvements in overall business performance. "We are thrilled to be recognized in the Gartner Magic Quadrant for AI in CSP Customer and Business Operations Report," said Nisha Dutt, CEO of Subex. " We think that being recognized as one of the key Players validates our relentless focus on developing AI-driven solutions that address the unique challenges and opportunities faced by CSPs globally. This is a significant milestone in Subex's journey, and we are committed to further solidifying our market position through continuous innovation and delivering exceptional value to our CSP customers" Subex's team of experts is dedicated to pushing the boundaries of AI innovation within the CSP domain. By continuously developing new solutions and enhancing existing ones, Subex ensures that CSPs have access to the most advanced AI tools and technologies to navigate the evolving landscape and achieve sustainable growth.

Tech Mahindra Recognized Among SEAL's 50 Most Sustainable Organizations Globally

Tech Mahindra, a leading global provider of technology consulting and digital solutions to enterprises across industries, has been recognized as one of the winners of the SEAL Business Sustainability Awards 2023. Tech Mahindra was awarded under the SEAL's Organizational Impact Award category. This prestigious accolade places Tech Mahindra among the world's 50 most sustainable businesses, showcasing its steadfast dedication to sustainable practices and leadership in environmental, social, and governance (ESG) standards. Tech Mahindra's recognition as a winner of the SEAL Organizational Impact Award highlights its commitment to pursuing 'Purpose Beyond Profits' by embedding ESG principles into its core strategy while balancing sustainability and overall profitability. By combining these efforts, Tech Mahindra ensures a healthier planet for all and provides greater value for its shareholders. Sandeep Chandna, Chief Sustainability Officer, Tech Mahindra, said, "We are honored to be recognized among the world's 50 most sustainable businesses by the SEAL (Sustainability,

Environmental Achievement, and Leadership). This accolade underscores our commitment to sustainability and environmental stewardship, driving transformative change and setting industry benchmarks. Tech Mahindra's sustainability solutions driven by new-age technologies and decades of experience help customers' business model to scale at speed into a greener, better organization." The methodology for the 2023 SEAL Awards involved a meticulous analysis of the "Climate Change" dimension of CDP's 2023 A-List assessment, representing over 21,000 disclosing companies. This data was combined with the 2023 CSA / S&P Global ESG ratings, covering over 9400 companies. The SEAL Awards team analyzed the distribution of rankings for each CDP and CSA, determining a numerical equivalent score that captured an equal level of selectivity. The methodology reflects a 69% weighting on the environmental dimension, along with 17% and 14% weighting on social and economic dimensions, respectively. This comprehensive approach leveraged premier ESG data sets to select the 50 most sustainable companies in the world. The SEAL Organizational Impact Award, a hallmark of excellence in sustainability, celebrates organizations demonstrating outstanding leadership, transparency, and commitment to sustainable business practices. The 2023 award methodology combined two premier ESG data sets: the CDP A-List™ and the Corporate Sustainability Assessment (CSA, now part of S&P Global ESG Scores™). This rigorous selection process underscores the importance of these assessments in identifying enterprises that excel in sustainability. This award is a significant milestone for Tech Mahindra. It affirms the organization's dedication to sustainability and recognizes its efforts to integrate ESG principles into every facet of its operations.

As a SEAL Organizational Impact Award winner, Tech Mahindra is poised to continue its journey towards creating a sustainable future, driving innovation, and setting new standards in the industry. Recently, Tech Mahindra was also recognized among World's Most Sustainable Companies 2024 by TIME Magazine and Statista.

Tech Mahindra and Marshall Sign MoU to Drive Innovation and Sustainability in Aerospace and Defense Engineering

Tech Mahindra, a leading global provider of technology consulting and digital solutions to enterprises across industries, announced that it has signed a Memorandum of Understanding (MoU) with Marshall Group, a specialist in engineering services for the aerospace and defense industry. The collaboration will combine the organizations' advanced engineering capabilities and cutting-edge digital solutions to drive innovation and sustainability in the aerospace and defense sectors. Tech Mahindra will support Marshall's engineering programs in aircraft design and manufacture, special mission platforms, and the development of digital maintenance, repair, and overhaul (MRO) technologies. Marshall will leverage Tech Mahindra's expertise in data analytics and intelligent field support technologies to enhance its infrastructure solutions' operational efficiency and reliability. Additionally, Tech Mahindra will engage in advanced design projects focused on developing future hydrogen fuel systems, aiming to replace fossil fuels and promote sustainability in aviation. Narasimham RV, President - Engineering Services, Tech Mahindra, said, "The aerospace and defense engineering sector faces significant challenges, including the need to drive productivity gains and sustainable technology advancements. Combining Tech Mahindra's global engineering and technology capabilities with Marshall's rich heritage and specialized knowledge, we are poised to create a powerful collaboration to drive innovation, deliver exceptional customer value, and enable the industry to scale at speed." Tech Mahindra and Marshall will harness their unique capabilities to drive growth and

innovation in the aerospace market. These capabilities include extensive expertise in aerostructures, electrical and mechanical engineering, airworthiness, and stress test engineering, gained over many years. The partnership will support the expansion of Marshall's engineering services programs by capitalizing on Tech Mahindra's strengths in the aerospace engineering sector. Gareth Williams, Chief Operating Officer, Marshall, said, "We are excited to take this major step forward with Tech Mahindra. As two family-founded businesses with a global presence and a shared commitment to providing critical support to our customers, we have much in common – but we also possess distinct and mutually complementary strengths. There is ample scope for Tech Mahindra to support Marshall's ongoing programs, and their global reach and expertise will undoubtedly unlock new use cases and markets where we have not yet established a presence." With nearly three decades of experience and expertise, Tech Mahindra is a global leader in engineering services for the aerospace industry. The organization works with eight out of top ten aerospace manufacturers and offers innovative solutions for original equipment manufacturers (OEMs) and aftermarket. Tech Mahindra has delivered millions of dollars in savings to 300+ customers worldwide and increased productivity through intelligent design and manufacturing excellence.

Yahsat-Bayanat Partnership Launches SAR Satellite for UAE

Bayanat, a provider of AI-powered geospatial solutions, and Yahsat, the UAE's flagship satellite solutions provider, have announced the successful launch of their first low Earth orbit (LEO) synthetic aperture radar (SAR) satellite. It went into orbit at the end of last week. This initiative took place in partnership with ICEYE, a pioneer in SAR satellite operations for earth observation, persistent monitoring, and natural catastrophe solutions. As part of the UAE's Earth Observation Space Program, created to build national satellite remote sensing and Earth observation capabilities within the UAE, this satellite is the first in a comprehensive SAR constellation that will deliver high-resolution, persistent monitoring solutions. SAR technology is an active sensing system that illuminates the Earth's surface and measures the reflected signal to generate high-resolution images. Unlike traditional optical imaging satellites, SAR can capture images day and night, regardless of weather conditions or solar illumination. Compared to other new space SAR satellite services, ICEYE says its radar antenna covers much larger geographical areas and provides higher-resolution images of smaller areas, providing more value to customers. The constellation of LEO satellites will provide a consistent data stream for end-to-end solutions for SAR applications. It will cover the entire value chain by leveraging the available synergies in Yahsat's upstream and midstream capabilities and Bayanat's downstream capabilities. The orbiting satellites will revisit the Middle East more frequently, enabling Bayanat and Yahsat to deliver near real-time, high-

definition images of on-the-ground conditions across the region and beyond. This initiative, say the companies, enhances their ability to provide timely and accurate geospatial insights, critical for applications in disaster management, maritime surveillance, and smart mobility. In December 2023 we reported that Bayanat and Yahsat had announced plans for a merger, effective late this year. The new group will be named Space42. Shareholders approved the plans in April.

Yahsat Approves Interim Dividend of US$55.79 million for H1 2024

The Board of Directors of Abu Dhabi-based Al Yah Satellite Communications Company (Yahsat) has approved an interim dividend distribution of 8.40 fils per share for the first half of 2024, WAM reported. In a notice to the Abu Dhabi Securities Exchange (ADX) on Tuesday, Yahsat announced that these dividends amount to 8.40 percent of the share's nominal value, totaling AED204,940,703 ($55.79 million), which will be distributed to shareholders registered by the end of the business day on Thursday, 12 September 2024. Additionally, the Board has approved the agenda for the company's General Assembly Meeting (GAM) and has called for the GAM to be held on 26th September 2024, or on a different date to be determined by the Securities and Commodities Authority.

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F5.5G 10 Gbps Optical Network and Premium Transmission Network Make Intelligence Ubiquitous

Looking back on the history of the optical industry, we can clearly see that service changes are the driving force behind its innovation and development. The continuous upgrade of optical technology accelerates service development. Since 2009, with the rapid popularization of video services, fiber has become increasingly popular and copper has declined in home networks. 100 Mbps FTTH optical access had become a necessity for home broadband, driving OTN transmission networks from 10G to 100G. Around 2018, as 4K HD video, short video, and smart home services grew rapidly, users were willing to pay for better Wi-Fi and wired networks. This drove the upgrade of home broadband to Gbps and the fast growth of home networking services. Premium enterprise private lines made OTN transmission networks more than just customer bearer networks, but also service networks.

> *In the intelligent era, the optical industry is faced with a new challenge to enable people to utilize intelligence as easily and freely as electricity. We believe that an F5.5G all-optical 10 Gbps and premium transmission capability target network must be built to do so. The 10 Gbps intelligent access network provides ubiquitous and ultra-broadband 10 Gbps bandwidth, enabling users to experience intelligent services anytime, anywhere.*

To date, the number of global gigabit users has exceeded 200 million, the number of FTTR users has exceeded 20 million, OTN transmission networks have been upgraded to 400G on a large scale, and extending all-optical nodes of OTN transmission networks to network edges has gradually become the norm among global operators.

Bob Chen
President
Huawei Optical Business Product Line

HUAWEI

Looking to the next decade, the most important change in the ICT industry will be intelligence. According to predictions from related organizations, the compound annual growth rate (CAGR) of global intelligence-related investment will reach 26.9%, and intelligence will be put to use by enterprises, households, and individuals. Leading Internet enterprises will compete for AI foundation models. Government agencies and financial institutions will deploy intelligence in their activities, including in disaster prediction, public security, financial risk control, and marketing. Vertical industries such as manufacturing and electric power will also begin to explore AI applications. At an individual level, intelligent services such as robots, AI assistants, cloud eSports, cloud computers, and smart homes will provide novel interaction experiences in entertainment and life. Traditional living spaces are rapidly going smart.

> *To date, more than 30 operators around the world have cooperated with Huawei to complete a series of commercial deployments and verification of 10 Gbps optical networks based on 50G PON.*

In the intelligent era, the optical industry is faced with a new challenge to enable people to utilize intelligence as easily and freely as electricity. We believe that an F5.5G all-optical 10 Gbps and premium transmission capability target network must be built to do so. The 10 Gbps intelligent access network provides ubiquitous and ultra-broadband 10 Gbps bandwidth, enabling users to experience intelligent services anytime, anywhere. The premium transmission network provides high-quality connections to computing and satisfies the high-quality connection requirements of distributed data center architectures.

10 Gbps Intelligent Access Network: Ubiquitous 10 Gbps, Differentiated Computing Power Access, and Intelligent Applications with Computing-Network Convergence

> *In households, services such as AI assistant, 4K cloud eSports, cloud NAS, and smart healthcare are promoting the evolution of home networks to "connectivity + computing + intelligence" applications, posing higher requirements on networks.*

In households, services such as AI assistant, 4K cloud eSports, cloud NAS, and smart healthcare are promoting the evolution of home networks to "connectivity+computing+intelligence" applications, posing higher requirements on networks. Take 4K cloud eSports as an example: if users want to play large-scale 3A games on the cloud without using local high-configuration hosts, the access network must provide guaranteed 300 Mbps bandwidth with a latency lower than 5 ms. If ultra-fast cloud NAS needs to back up photos, videos, and files to the cloud in seconds to achieve the same experience as storage on local hard disks, symmetric upstream and downstream bandwidth of 10 Gbps is required. To meet the requirements of new services, we believe that the access network needs to evolve to a 10 Gbps intelligent access network, which has the following features.

First, ubiquitous 10 Gbps access: 50G PON implements 10 Gbps to the home, and Wi-Fi 7 implements FTTR to increase the access rate by 10 times, from 1 Gbps to 10 Gbps. In this way, the access network provides local-like experience for intelligent services such as AI assistant, ultra-fast cloud NAS, cloud eSports, and cloud rendering. To date, more than 30 operators around the world have cooperated with Huawei to complete a series of commercial deployments and verification of 10 Gbps optical networks based on 50G PON. These include China Telecom Shanghai's 10 Gbps cloud broadband community, China Unicom Beijing's 10 Gbps live broadcast base, and China Mobile Yunnan's 10 Gbps campus. All these indicate that F5.5G all-optical 10 Gbps networks have entered commercial construction.

Second, deterministic experience: The access network needs to use intelligent service steering to upgrade best-effort experience to deterministic experience with guaranteed quality. The ONT transmission network identifies computing, video, and Internet access services based on service flow characteristics, and uses the intelligent E2E hard slicing technology from home Wi-Fi to the CO OLT of the access network to distribute computing services to premium bearer networks. Doing so achieves deterministic 10 Gbps bandwidth, 1 ms latency, and µs-level jitter.

> *Through the sharing and openness of computing power on FTTR and the CO OLT of the access network, more innovative applications can be enabled to accelerate operators' experience monetization.*

Third, intelligent applications with computing-network convergence: Through the sharing and openness of computing power on FTTR and the CO OLT of the access network, more innovative applications can be enabled to accelerate operators' experience monetization. For example, on the FTTR side, computing power and storage are converged to provide instant shooting and uploading, smart albums, and "local storage+cloud disk" backup for users. In addition, FTTR is integrated with sensing to detect activities based on Wi-Fi signal fluctuation, protecting home privacy and security. On the CO OLT of the access network, a high-performance computing engine is used to analyze users' application-level data. This helps operators provide services such as experience evaluation, potential customer identification, poor-QoE analysis, and experience optimization for users, achieving experience monetization.

Premium Transmission Network: High-Quality One Hop to Computing and Inter-Computing-Center Interconnection

> *Intelligence will be ubiquitous in the next decade, and a solid network foundation is required to support it. Based on the F5.5G 10 Gbps optical network and premium transmission network, 99.9999% availability ensures that computing power is always on, 1 ms latency ensures that computing power is instantly accessible, and ubiquitous 10 Gbps access makes computing power accessible everywhere, enabling all intelligence in various industries.*

In the Internet era, Internet access and video services were not real-time, and were not sensitive to network latency and packet loss. Operators and OTT providers built centralized data centers to serve users. With the advent of the intelligent era, enterprises' and home users' intelligent applications have higher requirements on network connection quality. Data centers are evolving towards a multi-layer and distributed architecture to meet differentiated bandwidth and latency requirements of services. For example, in the finance and government sectors, customers require that data be stored locally and trained on the cloud. This means the bandwidth from the cloud to the campus network must be higher than Tbps. In distributed computing power collaboration scenarios, if network latency exceeds 1 ms, the computing power efficiency will be greatly reduced. In addition, abnormal network interruption will cause AI training rollback.

Therefore, we believe that operators need a premium transmission network with high bandwidth, low latency, and high reliability. It will implement the high-speed interconnection and efficient collaboration of multiple data centers and provide one-click access and on-tap computing power services for various industries. The premium transmission network features the following.

First, the 400G 3D-mesh backbone transmission network: Based on a 3D-mesh architecture, backbone network nodes are connected with the shortest distance using optical cables. Moreover, an ultra-high-speed optical plane is added to hotspot areas to upgrade planar traffic to 3D traffic, preventing network congestion in the hotspot areas and building a data highway between computing centers. In terms of bandwidth, with the maturity of the industry chain, OTN networks are moving towards 400G. The 400G rate replaces the conventional 100G/200G rate, reducing the per-bit cost by more than 30%. The reduction in the number of occupied wavelengths also reduces O&M costs and brings considerable technical dividends. In terms of reliability, based on the multi-path protection of optical-electrical synergy ASON, the backup path is automatically restored, the network can withstand multiple fiber cuts, and each protection switching time is shorter than 50 ms. This ensures that network availability reaches 99.9999% and computing power is accessible as long as there is a path.

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Second, the 1 ms one-hop metro transmission network: The architecture needs to be upgraded in two directions — horizontal and vertical. In the horizontal direction, a metro core full-mesh network is built to resolve the high latency caused by data center interconnect (DCI) route detours in a ring network architecture. It enables one-hop connection between DCs, and implements 1 ms high-speed interconnection between computing centers. In the vertical direction, OTN is extended to network edges. OXC is used to upgrade port connections and electrical signal switching to optical switching as well as build an E2E all-optical switching network. This greatly reduces the latency caused by optical-electrical conversions and congestion. It also achieves premium service access to computing within 1 ms.

In the construction of all-optical 10 Gbps and premium transmission networks, an intelligent management and control platform is critical. The platform digitalizes transmission network resources, such as bandwidth, latency, reliability, and energy consumption, to implement the integrated and optimal scheduling of computing power and transmission capabilities. For example, the platform can select an optimal path based on the bandwidth and latency requirements of services and corresponding network resources to implement fast service computing. Additionally, once the platform detects a network reliability risk, it notifies users of the risk promptly and provides optimization suggestions to ensure that the computing power is always on.

Intelligence will be ubiquitous in the next decade, and a solid network foundation is required to support it. Based on the F5.5G 10 Gbps optical network and premium transmission network, 99.9999% availability ensures that computing power is always on, 1 ms latency ensures that computing power is instantly accessible, and ubiquitous 10 Gbps access makes computing power accessible everywhere, enabling all intelligence in various industries.

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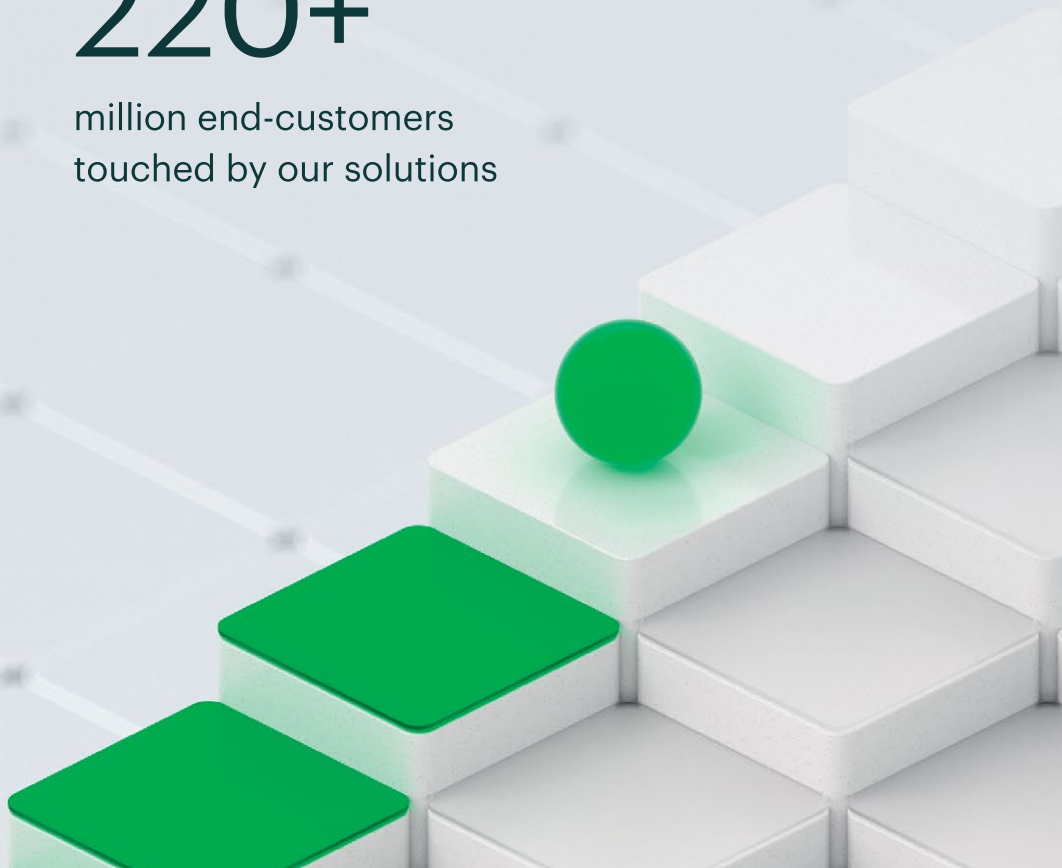

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ARTICLE

Open-Source Solutions as a Way to Reduce the Cost of Connectivity in Africa

Africa has shown good momentum in the telecom industry in recent years and is generally one of the most dynamically developing regions in the world. In 2022, subscriber penetration in Sub-Saharan Africa was 43%, and by 2030, it is expected to increase by almost 50%, from 489 to 692 million, while CSPs' revenues and investment will grow from $48 to $58 billion. Also, smartphone adoption in the region is predicted to expand from 51% to 88% in 2022-2030. African countries are actively launching digitalization processes, which is in line with the African Union's Agenda 2063, and telecom is the foundation for the growth of the digital sector. However, despite a universal desire to build a digital economy, there are obstacles to realizing these intentions. In this article, we look at factors affecting the development of mobile connectivity in the region and open-source technologies as a way to overcome the major cost-related challenges.

Factors Affecting Digitalization in Africa

Primary factors influencing digitalization in the African region include problems with the development of digital infrastructure, a shortage of accessible and affordable connectivity, a lack of experts for digitally enabled industries, insufficient regulatory and policy environments, and cultural features.

However, one of the primary problems with the digitalization of Africa is the extremely high cost of connectivity. African countries are amongst the regions with the highest prices of mobile data: in 2023, one gigabyte of mobile internet in Sub-Saharan Africa amounted to $3.31, and in Northern Africa, it was $0.86 on average. In general, the price of broadband Internet services is about 3% of the monthly gross national income (GNI) per capita globally; in Africa, it is estimated almost at 15%. According to the International Telecommunication Union (ITU), Internet prices are considered affordable when they are equal to or less than 2% of GNI. High connectivity costs arise due to low purchasing power, a common reason in low-income countries, but also due to insufficient telecom infrastructure, electricity problems, old technologies, and high costs of network and IT infrastructure maintenance and support.

Finding a Way to Cost-Efficient Connectivity with Open-Source Technologies

As stated by key stakeholders and policymakers, the problem of expensive connectivity should be resolved as soon as possible, as it hampers integration and economic processes strongly required by the continent's countries. One of the potential strategies to achieve this goal is to reduce the price of network and IT solutions

Maxim Nartov
Chief Business Officer
Nexign

in the region. On that front, African telcos have been traditionally relying on international telecom vendors known for costly licenses, expensive services, and long waiting time for modification requests. The ultimate result is the increased price of service for both end users and enterprises. Furthermore, many local communications service providers (CSPs) have long-lasting relationships with one or several specific vendors — as a result, they are restricted in their technological choices and have to build new services on siloed grounds.

> *The software for 4G/5G network functions can be based on open-source technologies without compromised performance, flexibility, and reliability. This year, one of the leading CSPs in Eastern Europe, serving a multi-million subscriber base, deployed our Oracle-free Nexign Policy Management for dynamic policy management in 4G and 5G networks. The project has shown that the performance of Nexign PCRF exceeds the replaced solution from a global PCRF vendor by 50%.*

One of the most expensive parts of vendor solutions is the cost of included third-party licenses, such the ones for hardware, virtualization, operating systems, and DBMSs. According to our estimation, they can account for up to 40-50% of the final price. However, most of these solutions, for example, Oracle DBMS, have open-source alternatives on the market. Open-source analogs help reduce the total cost of ownership (TCO) while also minimizing vendor lock-in risks for a CSP. At Nexign, we have been actively utilizing open-source technologies in our solutions for a long time. For example, last year we announced a new generation of our Nexign BSS, a databased-agnostic digital BSS. To run our billing system, CSPs can choose any core DBMS that works best for them in terms of their budget and overall IT strategy, such as Oracle, PostgreSQL, or even our own enterprise-grade RDBMS based on PostgreSQL — Nexign Nord.

Open-source solutions are often associated with a lack of reliable support, security, and fault tolerance problems — these are critical requirements for any carrier-grade system. To address these issues, we adhere to three important principles. First, before including any open-source product in our IT stack, we conduct its thorough internal functional and non-functional audit. Second, we guarantee extended support for the client. Finally, we refine open-source solutions to confirm that their security and availability parameters meet the CSP's requirements. This approach lets us ensure that we develop reliable products that can be trusted by CSPs while reducing their costs and minimizing lock-in risks.

For example, we have been migrating BSS components of one of the leading European CSPs from Oracle DBMS to Nexign Nord RDBMS. The goal was to reduce our client's dependency on imported software and improve its technological agility. The CSP serves tens of millions of geographically distributed subscribers, so their key requirement was to avoid any service interruption and impact on customer experience during the migration. Based on the project results, Nexign estimated that Tier 1-3 CSPs could reduce costs on third-party licenses by 10 times when shifting from expensive DBMSs like Oracle to open-source-based alternatives like Nexign Nord. For data synchronization between Oracle and Nexign Nord and quick rollback without data loss in case of accidents, we used our equivalent of Oracle GoldenGate — Nexign Data Integrator, a universal low-code ETL+ platform for data transformation.

Along with the obvious cost savings from using open-source technologies, there are other optimization opportunities that CSPs sometimes overlook, such as RCAF. RCAF collects data on congested base stations and affected subscribers and then sends it to PCRF to optimize network performance. As a result, the CSP can manage congestion issues at a software level without investing in network expansion, new RAN components, and licenses immediately. In addition to increasing the network efficiency, one of our customers is using Nexign RCAF to improve the control over the quality of experience for its high-paying subscribers. If the network is congested, RCAF and network policies ensure premium customers are unaffected. The software for 4G/5G network functions can be based on open-source technologies without compromised performance, flexibility, and reliability. This year, one of the leading CSPs in Eastern Europe, serving a multi-million subscriber base, deployed our Oracle-free Nexign Policy Management for dynamic policy management in 4G and 5G networks. The project has shown that the performance of Nexign PCRF exceeds the replaced solution from a global PCRF vendor by 50%. As a result, the CSP could significantly reduce TCO by lowering hardware requirements and future investments in the network equipment.

Conclusion: Why Africa Needs Commercial Open-Source Solutions

African countries have tremendous potential, and most of them are on their way to economic and technological sovereignty. The development of the digital sector is one of the key challenges for regional states, and telecom forms the basis for building a digital economy. In this context, local CSPs should consider ways to reduce connectivity costs. One of such strategies is to obtain software from alternative vendors, as diversification allows market players to stay afloat in these challenging times.

The industry needs a solid foundation, and local market players should carefully analyze potential challenges and consider them while selecting software vendors. The good news is that today, many technological players in the telecom market offer innovative yet cost-efficient and open solutions for fast and reliable business growth. Open-source software allows CSPs to save on licensing and maintenance fees. Besides, it usually requires less hardware power and helps save on hardware costs. Open-source software is agile and can be adjusted to the CSP's unique needs more easily than proprietary software. Finally, it offers freedom from vendor lock-in, minimizing related risks and advancing flexibility and control.

REGIONAL NEWS

UAE Among Top 20 Countries Operating SAR Satellites

The recent launch of the Synthetic Aperture Radar (SAR) satellite, titled 'Foresight-1', is a key achievement that reinforces the UAE's global leadership in the space sector, according to Bayanat. Hasan Al Hosani, Managing Director of Bayanat, a leading provider of AI-powered geospatial solutions and a subsidiary of G42, told the Emirates News Agency (WAM) that Foresight-1 places the UAE among the prestigious list of 20 countries around the world that operate SAR space assets, which strengthens its position in the space sector and supports its growing capabilities in this field. He pointed out that the strategic roadmap drawn up by Bayanat and Al Yah Satellite Communications Company (Yahsat), is based on deploying a constellation of satellites with SAR technology in the near future.

Strategic plan

He explained that since the initial announcement of the launch of the Earth Observation Space Program in 2023, the two companies have been implementing the strategic plan for the Earth Observation System, starting with the Foresight-1 satellite. He added: "After the successful launch of the Foresight-1 satellite, we are now able to operate space assets prepared to cross over the Middle East region repeatedly and in record time." He stated that what distinguishes the Foresight-1 satellite is that it provides continuous, high-resolution monitoring solutions, using SAR technology, which is an active sensing system that illuminates the Earth's surface and measures the reflected signal to provide high-resolution images, noting that, unlike traditional optical imaging satellites, SAR satellites can capture images day or night regardless of weather conditions or the reflection of sunlight. He said that this technology will enhance the quality of geospatial solutions and services provided by Bayanat and Yahsat, in addition to enhancing capabilities in disaster management, marine monitoring, and smart mobility applications. He pointed out that Emirati citizens constituted more than 30% of the Earth Observation Space Program, reflecting the commitment to developing highly qualified national cadres in one of the most vital sectors.

Bayanat and Yahsat merger

Regarding the expected merger between Bayanat and Yahsat, he expected the merger to be completed before the end of this year, subject to obtaining final approvals from regulatory authorities in the UAE and internationally. He pointed out that the merger contributes to establishing "Space42" as a leading Emirati company in the space sector with a global footprint, supporting the country's efforts to achieve the directions of the National Space Strategy 2030. Al Hosani stressed that Space42 will continue on the same path to achieve the goals of the National Space Strategy 2030, and support the country's efforts to develop its space capabilities, support national security, enhance innovation, encourage international cooperation, drive economic growth, and enhance urban development through space technology.

Fiber Internet Covers Over 775,000 Homes in Oman

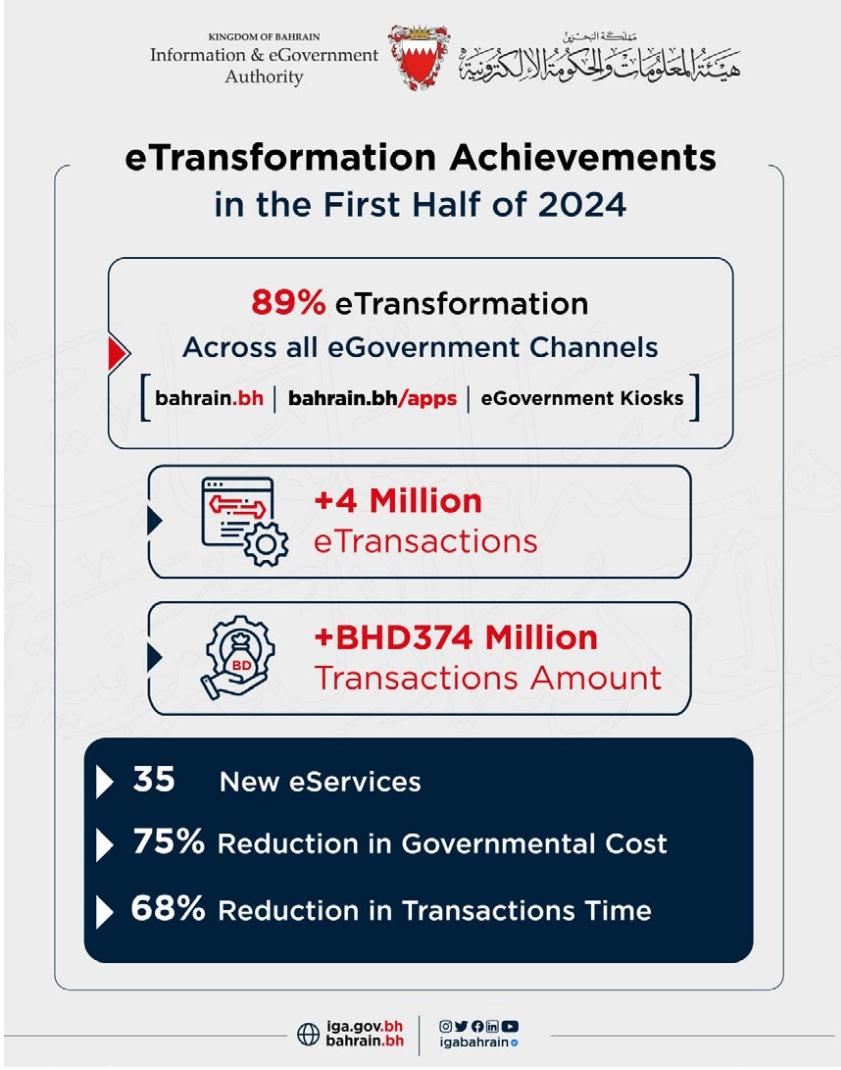
More than 750,000 (773,589) residential units in the country are now covered with fiber optic networks, according to the Telecommunications Regulatory Authority in its latest annual report, which was published recently. The report added that there are 5,238 stations to provide 5G mobile services in the country. The percentage of families using fixed broadband services went up to 80 percent (561,983) in 2023 from 75.5 percent (536,967) in 2022. The number of mobile phone users went up to 6,984,826 in 2023 from 6,749,535 in 2022. Total revenues created in the telecommunications sector increased to 878.5 million in 2023 compared to 794.9 million in 2020, 775.6 million in 2021 and 774.3 million in 2022. TRA also reported that major complaints against telecommunication service providers included anti-competitive prices and violation of regulatory obligations.

CST Publishes the Roads Index Report 2024 on Telecom Service Quality in Saudi Arabia's Roads

The Communications, Space and Technology Commission (CST), in collaboration with the Ministry of Transport and Logistic Services (MOT), has published the Roads Index Report 2024, which provides indicators for telecom services performance on both major and secondary roads in Saudi Arabia, with the aim to boost competitiveness in providing the best services to users and enable stakeholders to view the performance of telecom networks across Saudi Arabia. The updated Roads Index Report now includes indicators on telecom services and internet coverage, as well as rates for successful calls and acceptable internet speeds. It also provides a quality index for video streaming platforms on primary roads designated as '11' and secondary roads marked as '222'. The report revealed that telecom service coverage on Saudi Arabia's primary roads has reached 99%, with the same coverage level on secondary roads. This extensive coverage is due to the efforts of the telecommunications providers such as Saudi Telecom Company (STC), Mobily, and Zain each of which equally holds the top spot with a 99% coverage rate. The report revealed that broadband internet coverage on primary roads in Saudi Arabia has reached 99%, with the same level of coverage on secondary roads. STC topped the list of telecom providers with a 98% coverage rate, while Mobily was second at 94%, and Zain third at 82% for primary roads. On secondary roads, STC again led with 98% coverage, Mobily followed with 97%, and Zain ranked third with 82%. The report announced STC as the top telecom provider in call success rate index, with a 96% success rate, followed by Mobily with 95%, and Zain in third place with 90% on primary roads. For secondary roads, both STC and Mobily shared the top spot with a 95% call success rate each, while Zain ranked second with an 88% success rate. The report also revealed that STC has won the top place in acceptable internet speed samples on primary roads, with 89%, followed by Mobily at 68% and Zain at 40%. While on secondary roads, Mobily became first with 74%, followed by STC with 73%, and Zain in third place with 39%. The report also included a quality index for video streaming platforms on primary roads, with STC topping the list of providers at 76%. On secondary roads, both STC and Mobily were tied for first place with a score of 77%.

Bahrain's iGA Achieves Major Milestones in Digital Transformation in H1 2024

Bahrain's Information & eGovernment Authority (iGA) has achieved significant milestones in digital transformation, investing in emerging technologies, and enhancing IT governance policies in the first half of 2024. The number of electronic transactions completed through the National Portal, bahrain.bh, mobile applications, and other electronic channels reached 4 million, with digital payments surpassing BD374 million ($992 million). The iGA delivered 700 eServices across all eGovernment channels and launched 35 new eServices, resulting in a 75% cost reduction and 68% time reduction, according to iGA Chief Executive Mohammed Ali Al Qaed. A total of 950 ICT purchase requests by over 50 government entities, valued at BD36 million, were reviewed, and 100 strategic IT projects worth BD34 million were considered. Transactions through mobile applications available via the eGovernment app store, bahrain.bh/apps, exceeded 691,000, a 20% rise compared to the first half of 2023, with an average monthly usage rate of 788,000, and payment transactions surpassing BD32 million, a 14% increase. The number of app downloads reached over 902,000. The AlTajer app saw a 192% increase in payment transactions, and the eShabab app saw a 99% increase in users compared to H1 2023. Additionally, the Sehati app had a 38% jump in monthly users, the Tawasul app saw a 27% increase, and the eTraffic app had a 20% rise. The most used apps in H1 2024 were eTraffic, with an average of over 230,000 users, and Sehati, with over 136,000 users monthly. Key services launched in H1 2024 included 35 new eServices through the National Portal and eGovernment channels. These included nine new services by the iGA, such as QR code-enabled ID card printing and death certificate services. The Ministry of Industry and Commerce launched three new eServices within the AlTajer app, including a video call consultation request service. Other new services included those from the Nationality, Passports and Residence Affairs (NPRA), the Ministry of Housing and Urban Planning, and the Ministry of Justice, Islamic Affairs, and Endowments. Al Qaed highlighted the launch of 12 national systems, including Death Registration, the Building Permit Portal (Benayat), and the National Correspondence System 2.0, with updates to 124 services, including 33 new ones. The second phase of Sijilat 3.0 introduced a new interface and dashboard with 29 services, including five new ones. The National Suggestion and Complaint System (Tawasul) added the Telecommunications Regulatory Authority (TRA) and Eskan Bank as new entities, with over 85,000 cases directed through various government entities, achieving a 98.5% service level commitment rate and an 85% satisfaction rate. Service procedures and systems were redesigned to improve government service delivery. A total of 81 national initiatives, including electronic services and information systems, were restructured. Twenty-three government websites were evaluated, over 800 national systems were tested, and 251 government employees from 24 entities were trained. Two new eServices for Benayat were launched, accelerating transaction completion for large and small additions, benefiting approximately 1,400 engineering offices and government entities by enabling electronic building permits within two working days. The National Geospatial Database provided geospatial data with over 133,000 accesses, supporting entities like Benayat and planning platforms. A data backup project for 44 government entities using Microsoft 365 cloud computing services ensured comprehensive data protection. The advanced eKey system reached approximately 768,000 registered users, with over 14 million successful logins in H1 2024. Operations and governance achievements included linking 20 entities to the data lake, transferring 72 sets of data, launching the real estate information bank platform Aqari, and an Employment Skills Platform nearing launch. An interactive electronic meeting system was implemented during the 33rd Arab Summit and the 54th session of the Council of Arab Information Ministers, showcasing Bahrain's commitment to digital governance and technological advancement.



Qatar Invests US$2.4 Billion to Bolster AI Capabilities; Attracts Global Tech Leaders

Qatar spearheads artificial intelligence (AI) technology across MENA by investing a whopping $2.4bn (QR8.75bn) in incentives to strengthen its capabilities and to draw technology experts from around the globe. Speaking to The Peninsula in an interview, Faisal Al Monai, Co-Founder and Chairman of droppGroup, remarked that these investments are part of Qatar's wider approach to constructing a smart economy, with digital investments anticipated to reach $5.7bn (QR20.77bn) by 2026, up from $1.65bn (QR6.01bn) in 2022 as some market analysis firms have claimed. He said: "AI has significantly impacted Qatar and the broader MENA region, driving productivity, efficiency, and innovation across various sectors. In Qatar, AI initiatives like the Fanar AI project have been launched to enhance linguistic programs and support digital transformation." The market expert noted "significant strides" in adopting AI and development across the MENA region are witnessed. "In Saudi Arabia, the National Strategy for Data and AI aims to secure $20bn (QR72.88bn) in investments by 2030, positioning the Kingdom as a global leader in AI. This ambitious initiative includes training 20,000 AI specialists and implementing over 30,000 AI-related jobs as part of Saudi Vision 2030," Al Monai said. In addition to Saudi Arabia, countries including the UAE are also making tremendous progress. The UAE has launched the Mohamed bin Zayed University of Artificial Intelligence, the world's first graduate-level AI university, exemplifying its dedication to becoming a global hub for AI research and development. On the other hand, the industry leader highlighted that Qatar is leveraging AI to improve diverse realms such as healthcare, education, and transportation, contributing to its national vision of becoming a knowledge-based economy. Al Monai said, "These efforts collectively underscore the MENA region's dedication to harnessing AI for economic growth and innovation, making it a burgeoning landscape for technological advancement." However, AI technologies are being leveraged across numerous industries throughout the region, driving innovation and efficiency, stated the official. He highlighted key sectors like the energy, healthcare, and government in Saudi Arabia leading the race. Organizations such as Saudi Aramco is utilizing AI through initiatives like Metabrain AI to develop energy efficiency and optimize drilling operations. In the UAE, the transportation and logistics sectors are adopting AI to enhance traffic control and facilitate autonomous vehicle outcomes. The healthcare industry is also witnessing significant progress, with the technology used for diagnostics, patient care, and administrative efficiencies. "Qatar is leveraging AI in education, employing AI-driven platforms for personalized learning experiences and administrative management. The country's financial sector is also embracing AI for fraud detection, risk management, and customer service enhancements," Al Monai added. Experts across the region accentuate that these industries demonstrate the multifarious applications of AI technologies, driving productivity, innovation, and economic growth.

Libya, Morocco, and Seychelles Lead Africa in ICT Development

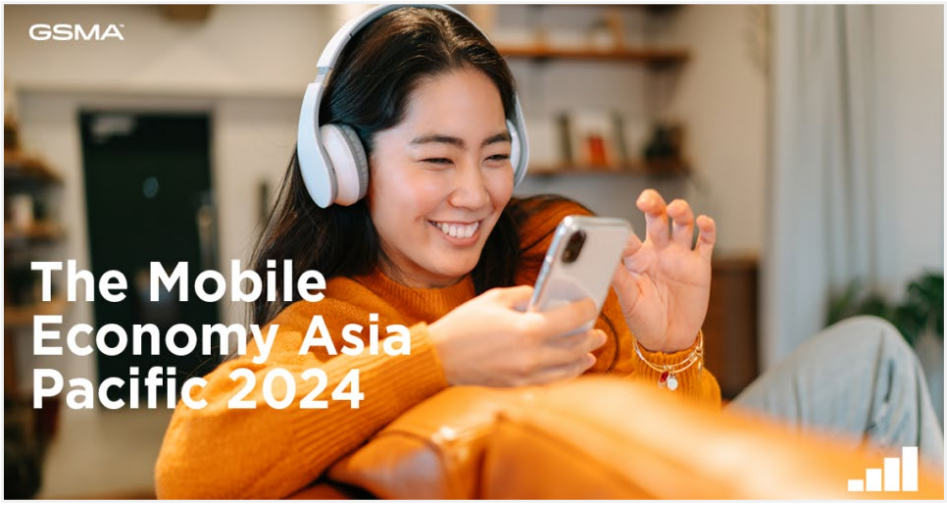
Libya, Morocco, and the Seychelles top the list for the highest ICT development levels in Africa, according to the "Measuring Digital Development – ICT Development Index 2024" report released by the International Telecommunication Union (ITU) in June. The report evaluates ICT progress in 47 African countries and 170 countries globally, based on 10 indicators, including internet usage, mobile broadband penetration, and the cost of mobile data and voice services. Scores range from 0 (no connectivity) to 100 points (optimal connectivity). Libya leads Africa with a score of 88.1 points, followed by Morocco (86.8) and the Seychelles (84.7). Other top performers include Mauritius (84.2), South Africa (83.6), Algeria (80.9), Botswana (78.7), Tunisia (77.2), Egypt (76.8), and Gabon (74.7). Despite improvements, significant disparities persist. The average score for Africa increased to 50.3 points, but the gap between Libya and Chad, the lowest-ranked country, is over 66 points. Chad scores 21.3, just ahead of Burundi (24.4) and Somalia (28.7).

Jordan Sees Robust Expansion in Broadband and Mobile Connectivity

Jordan's telecommunications sector is booming, with fixed broadband subscriptions soaring to nearly 798,800, and fiber internet dominating the market with a 69% share, Petra reports. The latest report from the Telecommunications Regulatory Commission highlights a robust demand for high-speed internet, underscoring the nation's rapid digital transformation. Fixed broadband services have achieved a 33.3% household penetration rate, driven largely by Fiber-to-the-Building (FTTB) technology, which commands a significant portion of the market with 548,000 subscriptions. Meanwhile, Fixed Broadband Wireless Access (FBWA) and Digital Subscriber Line (xDSL) technologies account for 19% and 12% of the market, respectively. Data consumption on fixed broadband has surged, reaching approximately 1.249 billion gigabytes. The average monthly usage per subscription jumped to 521 gigabytes, up from 389 gigabytes last year, marking a remarkable 34% growth. Mobile broadband subscriptions now total 7.788 million, split between 62% prepaid and 38% postpaid plans. The market is predominantly driven by voice and data packages, which constitute 84% of subscriptions, while data-only lines account for 16%. Mobile phone penetration stands at 67.3% of the total population, climbing to an impressive 103.6% among those over 15. The adoption of 5G technology is accelerating, with subscriptions skyrocketing to 27,800 a 128% increase from the previous quarter's 12,000. Data usage through mobile broadband services has also increased significantly, totaling 610 million gigabytes. The average monthly consumption per subscription has risen to 26 gigabytes, compared to 19 gigabytes last year, reflecting a 37% growth. The volume of mobile voice traffic reached 7.3 billion minutes, with 97% of calls being local and 3% international. Text messaging activity totaled 233 million messages during the quarter. Fixed voice services reported 493,700 subscribers, with the residential sector accounting for 67% and the commercial sector 33%. Fixed line call traffic amounted to 9.7 million minutes, with local calls representing 87% and international calls 13%. Leased line subscriptions increased to 20,900 by the end of the first quarter, demonstrating sustained demand for dedicated communication services. This report highlights the dynamic growth and technological advancement of Jordan's telecommunications landscape, showcasing the nation's shift towards digital connectivity and enhanced consumer engagement with modern communication solutions.

GSMA Predicts APAC Mobile Economy to Hit $1 Trillion

The mobile economy of the Asia Pacific was predicted to grow by US$130 billion by 2030 and hit US$1 trillion, due to faster adoption of 5G technologies in the region. The GSMA said in a report, mobile technologies and services generated 5.3% of GDP across the region in 2023, this amounted to US$880 billion of economic value. Manufacturing and fintech were highlighted have to been particularly enhanced by mobile technologies. The former is expected to see even greater advancements enabled by 5G applications such as smart factories, smart-grids and IoT-enabled devices. While, financial services and public administration are expected to benefit as they turn to 5G to digitally transform services and operations. The GSMA forecast that the contribution of the mobile industry to the APAC economy will outpace the global average of 12%, with a rate of 15%. The number of mobile internet users will grow from 1.5 billion (51% penetration) to 1.8 billion (61%) in 2030. Data traffic will quadruple between 2023 and 2030. Commercial standalone 5G networks are live in seven APAC nations: Australia, India, Japan, the Philippines, Singapore, South Korea, and Thailand. This will help in fuelling the predicted growth alongside 5G Advanced, RedCap and AI, creating opportunities to launch new 5G applications and kick start a fresh round in 5G investments for enterprises and consumers. The bulk of growth from the mobile economy will stem from APAC's developed markets such as Singapore, South Korea, Australia and Japan. Large portions of the region remain unconnected notably Bangladesh, India, and Pakistan. Key adoption barriers include lack of affordability, particularly for devices, and a lack of digital skills, particularly among older citizens. Julian Gorman, Head of Asia Pacific at the GSMA, said: "Hundreds of millions of people are still missing out. Addressing this usage gap and building online trust are crucial to closing this digital divide and ensuring everyone can benefit from the life-enhancing applications mobile can provide in area such as finance, education, and health."



PTA Launches Training Program to Enhance Child Online Protection

The Pakistan Telecommunication Authority (PTA) launched a four-day 'Training of Trainers' (ToT) program for officers from PTA, UNICEF, Telenor Pakistan, the National Commission on the Rights of Child (NCRC), and the NCERT. This initiative is part of a Memorandum of Understanding (MoU) signed with UNICEF Pakistan and reflects PTA's commitment to Child Online Protection. The program aims to raise awareness about the online risks children face and equip officers with the tools to help parents effectively manage their children's safe digital activities. This training was conducted as part of an ongoing series of a 10-day training program for 15 master trainers, who will train 210 facilitators to educate students, parents, and teachers, promoting digital literacy and online safety. The training covered critical topics such as online safety, Dark Web threats, and responsible internet usage. Experts from TikTok and Tencent shared insights into safety tools and practices on their platforms. Addressing the training session, Dr. Khawar Siddique Khokhar, Member Compliance & Enforcement PTA, emphasized the importance of collective efforts to protect children in the digital space. He reaffirmed PTA's commitment to providing parents and educators with the necessary tools to ensure children's online safety and promote responsible use of the internet. Member C&E PTA, UNICEF, and Telenor representatives also awarded certificates to the participants.

Jordan Launches National Blockchain Technology Network

The Ministry of Digital Economy and Entrepreneurship in Jordan has launched a national blockchain technology network in partnership with Jordanian blockchain company Blockexe. The implementation of blockchain technology in Jordan's government sector aligns with the Jordanian Digital Transformation Strategy (2021-2025). On July 17, the Jordanian Ministry of Digital Economy and Entrepreneurship announced its partnership with local blockchain company Blockexe to launch a national blockchain technology network called Modee Dlt. This protocol aims to enhance trust and transparency in government services. The blockchain network has been integrated with the Jordanian government portal, allowing for decentralized and verifiable digital records of all Sanad transactions. According to a report, this implementation aligns with the Middle Eastern nation's Digital Transformation Strategy (2021-2025), which focuses on strengthening the country's digital infrastructure. Under Jordan's ambitious strategy, innovation, as well as private and public sector partnerships, are seen as key enablers; hence, they are encouraged. Investments in critical information technology infrastructure, including broadband expansion and 5G deployment, are similarly viewed as important enablers. When achieved, these and five other enablers help Jordan improve the quality of life for its citizens. Meanwhile, the Ministry emphasized that utilizing the blockchain network across various government sectors will create a reliable digital environment, supporting the Kingdom's broader goals of achieving a robust and trustworthy digital economy. In addition to enhancing trust in government, this initiative aims to streamline the integration of e-government services, making them more transparent, efficient, and competitive both locally and internationally.

Mobily Connects

Empowering connectivity through
a new digital decade

mobily.com.sa/wholesale

ARTICLE

Monetization in the Evolving 5G Landscape

The arrival of 5G technology marks the start of a new era in telecommunications, bringing with it incredibly fast speeds, unmatched connectivity, and countless opportunities for innovation. For leading companies like Mobily, at the forefront of technology, media, and communications, 5G is not just a step forward; it's a game-changer. This technology offers a unique chance to transform service quality, deliver ultra-fast internet, and handle large amounts of data more efficiently than ever before.

As this shift changes the industry, Mobily is ready to enhance its capabilities and shape the future of digital connectivity. With 5G, we're prepared to provide smooth streaming of high-definition content, enable real-time interactions, and use AI for instant analysis of media data. This leap allows us to deliver accurate and immediate insights to users, redefining the user experience and setting new standards for innovation.

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Unlocking New Revenue Streams

5G does more than just make the internet faster. It opens up new ways to make money across various industries, with the Internet of Things (IoT) leading the way. Thanks to 5G's quick response times and high-speed connections, IoT devices can now communicate more effectively. This makes real-time applications in areas like healthcare, agriculture, and smart cities not just possible, but transformative.

Omar S. Alrasheed
Chief Corporate Strategy & Digitalization Officer
Mobily

In healthcare, for instance, 5G-enabled IoT devices are changing how we care for patients. They allow for remote monitoring, which can improve health outcomes and cut costs. Imagine patients with chronic conditions being monitored continuously, with data sent instantly to doctors for quick action when needed. This is the kind of innovation 5G is bringing to life.

In manufacturing, 5G speeds up the adoption of smart technology. Factories with 5G networks can use real-time data to optimize operations, predict maintenance needs, and automate processes. This results in higher productivity and less downtime. These advances not only create value for businesses but also contribute to the broader economy, aligning perfectly with Saudi Vision 2030.

We, at Mobily, are in a prime position to lead in this new era by adopting 5G technology. By pioneering advancements in these key areas, we can drive innovation and push the boundaries of what's possible in technology, media, and communications.

Enhancing Customer Experiences

Making money in the 5G era is closely linked to improving customer experiences. 5G allows us to deliver high-definition video, immersive augmented and virtual reality experiences, and smooth cloud gaming—all of which need the high speed and low latency that only 5G can provide. At Mobily, we're committed to using 5G to offer cutting-edge entertainment and interactive services, which will boost customer satisfaction and loyalty.

What makes Mobily stand out is our focus on creating personalized, engaging experiences. Imagine attending a live concert through augmented reality or exploring the wonders of Saudi Arabia virtually from your living room. These are not just futuristic dreams but real possibilities thanks to 5G. Our goal is to not only meet but exceed customer expectations, providing experiences that are seamless and tailored to their needs.

Additionally, 5G gives us a chance to explore new pricing models. By offering different service plans based on speed, latency, and quality, Mobily can meet a wide range of customer needs and preferences. This strategy not only helps us maximize revenue but also ensures that our customers get the best value for their money.

Driving Economic Growth

5G is a powerful driver of economic growth and diversification, which aligns with Saudi Vision 2030. By building a strong digital infrastructure, 5G can attract foreign investment, support new industries, and create high-quality jobs. Developing smart cities and expanding the digital economy are key parts of Vision 2030, and 5G is essential for these goals.

Studies show that 5G could add over $8 trillion to the global GDP by 2030, with Saudi Arabia positioned to capture a significant share. This makes Mobily a key player in driving economic diversification and innovation in the Kingdom. By adopting 5G, local businesses can innovate and compete more effectively in international markets, boosting Saudi Arabia's position in the global digital economy.

Addressing Challenges and Strategic Initiatives

While 5G offers huge opportunities, it also comes with challenges. Major investments in infrastructure, the need for skilled workers, and strong cybersecurity measures are critical issues that need attention.

5G is a powerful driver of economic growth and diversification, which aligns with Saudi Vision 2030. By building a strong digital infrastructure, 5G can attract foreign investment, support new industries, and create high-quality jobs. Developing smart cities and expanding the digital economy are key parts of Vision 2030, and 5G is essential for these goals.

At Mobily, we're tackling these challenges through strategic partnerships, ongoing investment in our network, and a focus on developing talent. Our collaborations with leading tech providers keep us at the cutting edge of innovation, while our commitment to cybersecurity ensures our services are safe and reliable.

Conclusion

The 5G revolution is a defining moment for the telecommunications industry. For Mobily, it represents a unique chance to innovate, enhance customer experiences, and drive economic growth. By leveraging 5G's capabilities, we are set to unlock new revenue streams and contribute to Saudi Vision 2030. As we enter this new technological era, Mobily is ready to lead the way. We invite our customers, partners, and stakeholders to join us in harnessing the power of 5G to create a future where connectivity drives progress, innovation, and economic prosperity.

ARTICLE

5G Advanced Lays the Foundation for a "Mobile AI" Era

Over the past five years, commercial 5G has achieved remarkable success and made an unprecedented impact on the global mobile industry. It has extended the breadth of global services, delivered higher speeds for better experience, and deepened digital transformation around the world.

5G continues to develop apace, with the first standards release for 5G-Advanced or 5.5G officially "frozen" this past June. More than 60 carriers and partners have also announced commercial 5.5G deployment.

Now, the mobile AI era is on the horizon. It will usher in three seismic changes.

> *The mobile AI era is on the horizon. It will usher in seismic changes.*

First, human-computer interaction will shift from being touch-based to multimodal. This means the ways we interact with computers will extend to natural language, gestures, and emotions, delivering on-demand, 24/7 experience.

Second, content generation will be revolutionized. Previously, people acquired information mainly through search engines. In the future, such information will be generated by AI. Information production will be no longer about prefabrication, but about customization, making comprehensive and tailored real-time services available.

Third, mobile devices will go from being smartphones to being AI terminal assistants and embodied AI. This means mobile devices will become portals to seamless AI.

These huge changes will revitalize society and create tremendous opportunities for the mobile industry.

David Wang
Executive Director of the Board, and Chairman of the ICT Infrastructure Managing Board
Huawei

HUAWEI

Coping with a surge in data use

Thanks to graphical interaction, mobile data traffic growth outpaced Moore's Law for the past 10 years. Specifically, [user data consumption] Data of Usage (DoU) has grown by 125 times over the last decade, meaning it has doubled every 17 months. In the mobile AI era, generative content will become a primary method of information acquisition, replacing retrieval and increasing interaction efficiency by 100 times.

AI-generated content (AIGC) will also facilitate the generation of content in different formats, including 3D and spatial video, increasing content volume by 100 times. In addition, a large number of mini-models built into devices will start to collaborate with foundation models on the cloud in real time. These phenomena will drive a new wave of explosive data growth, outpacing Moore's Law once again.

> *In the future, everyone will have an AI assistant that runs on their smartphones, glasses, and devices.*

The Internet of Vehicles (IoV) will make driving safer, easier, and more enjoyable. Intelligent cockpits will create new driving experiences and gigabit network experience will better support vehicle-mounted smart assistants, video streaming on multiple screens, extended reality (XR) applications, and other requirements. This will make vehicles a mobile third space suited for both leisure and work.

Leave the driving to AI

At the same time, intelligent driving will disrupt traditional driving systems. Every month, 100 GB of driving data will be uploaded to train the intelligent driving system, making models, perception, and responses more accurate in dynamic driving environments. In addition, millisecond-level V2X will provide reliable and stable driving strategies in real time.

The Internet of Everything (IoE) will be also greatly expanded in the mobile AI era. As machines are more able to think and move around like humans, network connections will expand from humans to silicon-based digital humans, which will create 10 billion new connected AI assistants and workers.

> *Every month, 100 GB of driving data will train intelligent driving system, making models, perception, and responses more accurate.*

For individuals, everyone will have an AI assistant in the future that runs on their smartphones, glasses, and AI devices. AI assistants will move beyond just being tools and become our companions, responding to requirements in all scenarios like work, play, and learning in real time.

Intelligent factories and logistics

In industry, every smart factory will have an AI brain, enabling AI workers to deeply integrate into production activities. AI workers will be capable of self-learning and making accurate responses, improving the quality and efficiency of the end-to-end process from production and maintenance to quality inspection and logistics.

There will be so many new connected AI assistants and workers, tens of billions, that they will eventually outnumber the connections of people and spearhead a new era of human-machine integration.
The mobile AI era will present tremendous new opportunities.

Against this backdrop, the whole industry needs to work closely together and make the most of what this era has to offer. 5.5G is a key pillar of the mobile AI era, so Huawei will continue to accelerate its development and work with carriers and industry partners to create new commercial value. This will require joint efforts in the following two areas.

Laying the groundwork for a mobile AI world

The first is Networks for AI, which means using networks to fuel the development of AI in order to lay a solid foundation for the mobile AI era. There will be a wide array of services in the future, which will, in turn, raise higher requirements for network capabilities such as large uplink and downlink bandwidths and low latencies. To meet the growing demand for the Internet of People (IoP) and IoV, we will need to accelerate the evolution of all frequency bands to support 5.5G experience, fully unleash the value of each frequency band, and build a foundation for a superior network experience.

The second area that requires joint effort is AI for Networks, which means using AI to empower networks and enable network productivity surges on all fronts. To fully embrace AI, improving network O&M efficiency is imperative. Our Telecom Foundation Model, for instance, accelerates the evolution of networks to L4 Autonomous Networks (ANs) and provides two types of applications: role-based copilots and scenario-specific agents. Copilots improve the productivity of different roles by providing Q&As related to professional knowledge and assisted O&M. Agents, on the other hand, can understand user intent and orchestrate tasks to automatically resolve issues in complex scenarios.

> *To fully embrace AI, improving network efficiency is imperative.*

I believe that over the next decade, we will fully embrace mobile AI. The intelligent world is fast approaching, and 5.5G will serve as a cornerstone of future development. As always, Huawei will remain committed to working with all industry players to seize the tremendous opportunities presented by the mobile AI era and build a fully-connected, intelligent world.

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SATELLITE NEWS

Intelsat Advances 3GPP Approval for Unified Satellite and Terrestrial Network

The 3GPP mobile standards organization has approved an Intelsat-led Ku-band project for standardization. Intelsat led the effort with support from 35 companies and 3GPP community members, including other satellite operators, terrestrial vendors, and mobile network operators (MNOs). The approval of the "Ku-band Work Package" means that Intelsat and other satellite providers will now begin the process leading to full certification to deploy Ku-band-based 5G New Radio (NR) services, targeted to be completed at the end of 2025. Intelsat calls this a crucial step towards the Intelsat Unified Network vision. The satellite operator said this project will broaden the reach of Ku-band satellite services with the mobile industry's economies of scale to allow mass-market devices like smartphones, mobile VSATs, and industrial IoT devices to roam across satellite constellations and terrestrial cellular networks. Intelsat CTO Bruno Fromont commented: "We will continue to spearhead the significant effort required to specify and standardize Ku-band use cases and conduct all applicable coexistence configurations, facilitating the integration of satellite network components into 5G NR systems and ensuring seamless mobility between terrestrial and non-terrestrial networks."

Airtel Nigeria Sets Up Eutelsat OneWeb Satellite Dish

Airtel Nigeria says it has successfully set up a satellite dish in Lagos for Eutelsat OneWeb's LEO satellite broadband service, which it says will be used to bring high-speed internet to remote areas. In a post on LinkedIn on Friday, Airtel Business Nigeria said it has also trained its local team to manage the technology, "ensuring sustainable growth and innovation for the future." The deployment is part of a broader deal between Airtel Africa and OneWeb that was signed in November 2022 before the company officially became Eutelsat OneWeb in September last year. According to the Ecofin news agency, Eutelsat OneWeb began deployment of services in each of Airtel Africa's 14 markets after following tests in South Africa in September 2023. The first to publicly launch services was Airtel Madagascar, which announced its "Airtel Satellite" service in March 2024. While the official announcement doesn't mention OneWeb, it described Airtel Satellite as "a very high-speed, low-latency and highly resilient connectivity service". A separate Ecofin report says it is part of Airtel Africa's agreement with Eutelsat OneWeb. Adding LEO satellite to its connectivity portfolio could give Airtel Nigeria a boost in its subscriber base by extending its reach to rural populations. According to the latest data from the Nigerian Communications Commission (NCC), Airtel Nigeria currently ranks second in the mobile internet market with 48.8 million subscribers as of March 31, for a market share of 28.5%. Rival MTN Nigeria leads the market with 69.3 million mobile internet users, or 42.3% market share. That said, its overall mobile market share is 37.5%, while Airtel Nigeria ranks second at 28.9%. Globacom is technically third but almost tied with Airtel Nigeria at 28.4% mobile market share. The NCC also says that 61% of the country's rural population remains unconnected.

Indosat Ooredoo Hutchison and Huawei Complete Consolidation of Large-Scale PS Core Serving Hundreds of Millions of Indonesian Users

Indosat Ooredoo Hutchison, one of Indonesia's leading telcos, in cooperation with global ICT solution provider Huawei, has finalized a large core network consolidation project in Jakarta. The completion of this work represents a milestone in their extensive cooperation and further propels Indosat's advancement and innovation in mobile communication technologies. This project, that covers more than 100 million users, was delivered within 14 months only, and is the first of its kind in the world. The project significantly improves the network experience of Indosat's users across Indonesia, especially those living in rural and remote areas. For instance, residents of Kalimantan will enjoy a faster average downlink speed of 15% while the average round trip time (RTT) will be reduced by 11% for Facebook usage. Meanwhile, according to data from Opensignal, residents of Central Java are already experiencing a 3.4% better performance while using the Internet for games and 7.2% for live videos. Desmond Cheung, Director and Chief Technology Officer of Indosat Ooredoo Hutchison, said: "We're humbled to create another benchmark for the telecommunications industry. The core network consolidation project is a testament to our commitment to delivering a world-class digital experience to our customers. With the completion of this initiative, we believe we can consistently deliver a marvelous experience to our customers while paving the way towards our mission of connecting and empowering every Indonesian." George Gao, President of Huawei Cloud Core Network Product Line, said: "Thanks to our close and in-depth cooperation, we are very pleased to witness a great achievement in completing such a large-scale and complex network consolidation in a short period of time. Huawei will continuously support Indosat to enhance network connectivity, accelerate service innovation, and create industry value in digital transformation, achieving greater business success." The project is a testament of both parties' technological strengths, hard work, courage, determination, as well as team spirit, in tackling a multitude of challenges. The teams defined key indicators for measuring network performance, user experience based on data analysis and test results. In addition, they formulated detailed operations and emergency plans to ensure operation precision and efficiency, network stability, as well as service continuity across 26 PS Core locations across Indonesia. By adopting the leading telco cloud-native technology, Indosat and Huawei commercialize both bare metal container and innovative dual-engine container solution, which supports large-scale commercial use

of 5G core networks. The dual-engine container solution leverages cutting-edge technologies to manage both virtual machines (VMs) and containers in a unified infrastructure platform, that enables Indosat seamlessly introduce containers through capacity expansion, significantly reducing the time needed for service rollout and reducing the time-to-market (TTM). In the intelligent and digital era, Indosat has also increased its requirements for intelligence and ultra experience. Both Indosat and Huawei have collaborated to deploy future-proof core networks that can adapt to the 5G-A intelligent and hyper-distributed architecture. It meets current network needs and furthermore, paves the way for introducing 5G new features and services increasingly diversified for toC and toB users.

Starlink to Bring Its Satellite Service to Other US Carriers

Starlink, the satellite network from Elon Musk's SpaceX, has been working exclusively with T-Mobile for a long time to offer Direct to Cell satellite connectivity. But that's about to change. SpaceX CEO Elon Musk said that while Starlink's satellite connectivity is currently limited to T-Mobile users in the USA, the service will soon be available to customers of other carriers. After the partnership ends, they plan to expand to other carriers and broaden access to it. A few days ago, SpaceX's Senior Director Ben Longmier shared his excitement on X about how the company pulled off a double launch. They succeeded in sending two rockets up from the coasts of Florida and California. With those missions, they added 26 new satellites to the Direct to Cell program, bringing the total number to 168. It's huge news for every T-Mobile customer because it means that by the end of the year, dead zones in the U.S. should be a thing of the past. Wherever you are, you will have cell coverage, even in the most remote spots. Starlink direct to mobile phone Internet is exclusively with @Tmobile in the US for the first year, then other carriers thereafter. In response to his post, Elon Musk wrote that Starlink's Direct to Cell satellite service is currently restricted to the USA. But after the first year, you will gain reliable connectivity for calls, texts, and data if you are in rural or remote locations. You should also expect emergency services. To be clear, that's happening in 2025 and it all depends on approval from each country's government. The company plans to expand globally and partner with one carrier per country and eventually extend all carriers. Frankly, it makes much more sense this way. With a large-scale project like this, you want to take your time and ensure everything goes smoothly. One carrier per country allows them to fix issues as they pop up and manage costs.

5G in MEA

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ARTICLE

Unlocking 5G Monetization in the MEA Region

Danial Mausoof
VP, Head of Technology and Solution Sales
Nokia

The Middle East and Africa (MEA) is quite a diverse region in terms of telecommunications and digital transformation. The Gulf Cooperation Council (GCC) has made significant strides in its 5G journey, with countries such as the UAE and Saudi Arabia emerging as leaders in 5G deployments and speed. In contrast, Africa is still at the early stages of its 5G development. Currently, 77% of mobile data across the region is still on 4G, while 5G accounts for approximately 15%, primarily driven by the advancements in the GCC. Although 4G continues to grow in Africa, a wave of 5G investments is on the horizon as spectrum allocation progresses and operators seek solutions to alleviate the growing congestion on their 4G networks.

> *The MEA region is uniquely positioned to harness the transformative power of 5G technology. By focusing on key areas such as enhanced mobile broadband, fixed wireless access and private wireless for enterprises, Network as Code, IoT, and smart cities, operators can unlock significant monetization opportunities.*

With its ultra-high speeds, low latency, and massive connectivity capabilities, 5G promises to revolutionize various industries and create new revenue streams. As countries across the region continue to deploy this next-generation network, the focus is increasingly on how to monetize it effectively. Here are some key opportunities, strategies, and innovations for monetizing 5G in the MEA region.

5G monetization sees operators move beyond converting 4G subscriptions to 5G, upselling data and speed tiers and expanding the connectivity base, to capturing home and SoHo connectivity through 5G Fixed Wireless Access (FWA) and expanding within the enterprise market with private wireless and network slicing.

FWA is a critical component of 5G monetization which is already yielding success with consumers, as 70% of mobile traffic is already being consumed by video and we are seeing a 45% CAGR growth in the global cloud gaming market. In areas where fixed-line infrastructure is limited or non-existent, FWA provides a viable alternative for high-speed internet access. For businesses, especially in underserved and rural areas, FWA can ensure reliable and fast connectivity, essential for operations and growth. Enterprises can leverage FWA for cloud-based applications, video conferencing, and other bandwidth-intensive activities, significantly enhancing their productivity. Operators can offer customized FWA packages for enterprises, ensuring dedicated bandwidth and superior service levels, thereby unlocking a lucrative revenue stream and increasing profitability. Globally, FWA has emerged as the leading 5G use case in the United States. This trend is mirrored in MEA where Nokia has achieved significant success with its FWA deployment focus on underserved consumers in sub-urban and rural areas, providing substantive additional capacity potential of mmWave. Moreover in collaboration with Du, Nokia has conducted a highly successful FWA deployment with home wireless traffic representing around 80% of 5G traffic."

The superior speeds and reliability of 5G networks provide an enhanced mobile internet experience, attracting both consumers and businesses. Operators in the MEA region can capitalize on this by bundling 5G services with premium content such as high-definition video streaming, cloud gaming, augmented reality (AR), and virtual reality (VR) experiences can further drive subscriber growth and increase revenue.

Network as Code is an innovative approach that can revolutionize 5G monetization, allowing CSPs to monetize network capabilities by partnering with application developers, simplifying the complexity for third parties to act on those capabilities thereby offering a monetization framework for the different stakeholders. It allows operators to program and manage their networks using software, enabling greater flexibility, efficiency, and scalability. By adopting Network as Code, operators in the MEA region can offer highly customized and on-demand network services to their customers. For enterprises, this means the ability to dynamically allocate network resources based on real-time needs, ensuring optimal performance for critical applications. Monetization opportunities arise from providing Network as Code as a service, where businesses pay for network capabilities as they use them. This not only drives new revenue but also enhances customer satisfaction by delivering tailored solutions.

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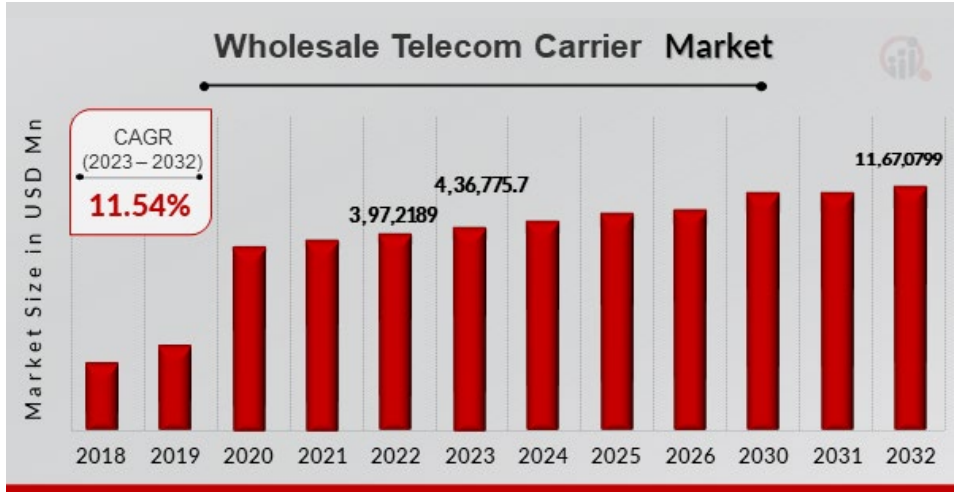
The Internet of Things (IoT) and Industry 4.0 are poised to benefit significantly from 5G's capabilities. The low latency and massive connectivity of 5G networks enable real-time data collection and analysis, essential for IoT applications. Industries can leverage 5G-enabled IoT solutions to optimize operations, improve efficiency, and reduce costs. Operators can monetize these opportunities by offering specialized IoT connectivity packages, data analytics services, and industry-specific solutions.

The MEA region is uniquely positioned to harness the transformative power of 5G technology. By focusing on key areas such as enhanced mobile broadband, fixed wireless access and private wireless for enterprises, Network as Code, IoT, and smart cities, operators can unlock significant monetization opportunities. Strategic partnerships, innovative service offerings, and a customer-centric approach will be essential for success. As 5G continues to roll out across the region, those who can effectively capitalize on its capabilities will lead the charge in the digital economy, driving growth and prosperity in the MEA region.

WHOLESALE NEWS

Wholesale Telecom Carrier Market is Predicted to Reach USD 11,67,079.9 million at a CAGR of 11.54% During the Forecast Period 2023-2032



Market Research Future (MRFR) has published on the "Global Wholesale Telecom Carrier Market". The global wholesale telecom carrier market is estimated to register a CAGR of 11.54% during the forecast period of 2023 to 2032. MRFR recognizes the following companies as the key players in the global wholesale telecom carrier market— Verizon, AT&T Inc, T-Mobile USA Inc, Orange, Deutsche Telekom, Telefonica S.A., Singtel, NTT Communications Corporation, BT Wholesale, Rogers Communications, SWISSCOM, AI Group, KDDI Corporation, Saudi Telecom Company, and Others. The global wholesale telecom carrier market is accounted for to register a CAGR of 11.54% during the forecast period and is estimated to reach USD 11,67,079.9 million by 2032. Wholesale telecom is the resale of telecommunications services utilizing carrier network connectivity. Types of services sold include various voice, data, wireless, and Internet access options. Wholesale Telecom is used by companies engaged in web-based applications, media, telecommunications, or providing ISP services. The anticipated market growth stems from the rising demand for data, cloud, and digital services, along with the availability of affordable tariffs and widespread communication options. However, several factors restrain market expansion, including the decline in international voice traffic, maturity of the wholesale business, inflation-driven threats, and evolving regulatory landscapes. Nonetheless, opportunities are expected to arise from innovations in voice and data wholesale, enhanced process automation, and the expansion of telecommunications infrastructure, customer services, and new business models. These factors are poised to create lucrative prospects for participants in the Global Wholesale Telecom Carrier market.

BT Wholesale Welcomes Zoiko Telecom to Partner Plus

BT Wholesale has welcomed Zoiko Telecom, into its Partner Plus program. This partnership grants Zoiko Telecom access to EE, allowing it to deliver faster connectivity and a broader range of services to both residential and business customers across the UK. Through this collaboration, Zoiko Telecom will enhance its portfolio with a variety of new services, including Broadband Internet, IoT, Landline Services, Fiber Optic Services, Business Solutions, and Cloud and Hosting Services. Upcoming launches of Television Services and Home Security and Automation will further solidify its position in the market. Gavin Jones, Channel Director at BT Wholesale, said: "BT Wholesale is excited to welcome Zoiko Telecom to Partner Plus and bring our leading connectivity solutions to their customers. "Thanks to this partnership, Zoiko Telecom can also level-up their portfolio by offering services that leverage the speed, strength, and reliable connectivity provided by EE's network – the UK's best network." Lennox McLeod, Strategic Project Director at Zoiko Telecom, added: "Partnering with BT Wholesale and getting access to EE's network will be a game-changer for our customers, ensuring they are always connected, protected, and empowered."

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ARTICLE

5G Rollout in MENA Accelerates with Widespread Network Launches

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5G deployment in the MENA region is progressing quickly. Operators in some countries have already rolled out 5G networks with widely available coverage, while others are preparing for future launches. Regulators have adopted different strategies and approaches for 5G spectrum, coverage, and quality standards, highlighting each market's unique challenges and opportunities.

19 operators across seven observed MENA countries have successfully launched commercial 5G services, marking significant progress in the region's telecommunications landscape. These seven countries are Bahrain, Jordan, Kuwait, Qatar, Oman, Saudi Arabia and the United Arab Emirates (UAE).

> *Ten operators in the MENA region have achieved 5G network coverage that exceeds 90% of the population. This extensive coverage is a testament to the region's commitment to advancing digital infrastructure, despite the varying speeds of rollout across different countries.*

Other MENA countries have reached an advanced preparatory stage. For instance, Egypt granted Telecom Egypt a 5G licence, paving the way for its upcoming 5G service launch. Meanwhile, the Tunisian Ministry of Communication Technologies launched in June 2024 a call for tender to award the 5G licence, aiming for network rollout to start in 2025.

In Algeria, Iraq, Lebanon, Libya, Morocco, and Türkiye, operators have conducted several 5G trials, setting the foundation for future commercial 5G launches.

Spectrum allocation and usage

The 3.5 GHz band has been the most commonly used spectrum band for 5G services across the region, with operators in all seven operational countries utilising this band to deliver their high-capacity networks. Additionally, some operators are leveraging the 700 MHz and 2.6 GHz bands to enhance 5G coverage and capacity.

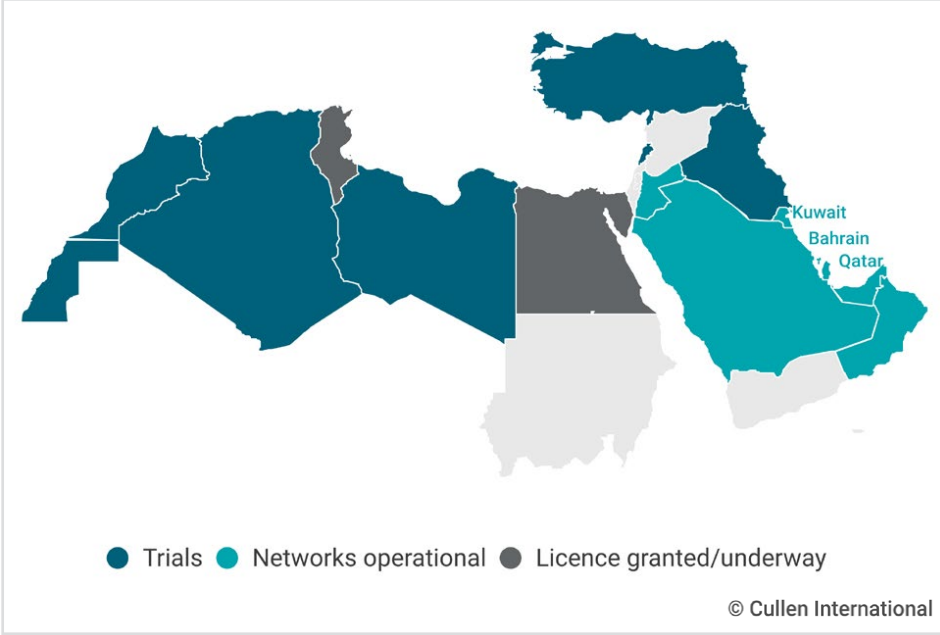
Qatar and the UAE have taken a pioneering step by awarding spectrum in the 26 GHz band to mobile operators, enabling them to explore the potential of millimetre-wave technology for ultra-high-speed services.

In addition to the existing allocations, several countries have plans to release more spectrum to support 5G. Saudi Arabia is set to allow operators to acquire additional spectrum in the 600 MHz, 1.5 GHz, and 3.8 GHz bands.

Similarly, Bahrain's Telecommunications Regulatory Authority has announced plans to auction additional spectrum in the 700 MHz, 1.5 GHz, 2.3 GHz, 2.6 GHz, and 3.8 GHz bands.

Coverage requirements and quality of service (QoS) standards

Jordan, Oman and Qatar have established 5G coverage requirements, although their approaches vary significantly.



All observed countries in the MENA region are trialling, preparing or have launched 5G services

In Jordan, the regulator TRC required mobile operators to cover 50% of the population within four years and 75% within nine years from the spectrum award date.

Qatar has set ambitious targets for nationwide coverage, while Omani operators were required to install 4,400 base stations by 2024.

Coverage obligations and QoS requirements in Saudi Arabia are not technology-based.

Saudi Arabia has introduced a phased plan to achieve an average 5G download speed of 200 Mbps by 2025.

Ten operators in the MENA region have achieved 5G network coverage that exceeds 90% of the population. This extensive coverage is a testament to the region's commitment to advancing digital infrastructure, despite the varying speeds of rollout across different countries.

Country	3.5 GHz	26 GHz
UAE	200 MHz/operator	1,000 MHz/operator
Bahrain	100 MHz/operator	-
Jordan	100 MHz/operator	-
Kuwait	100 MHz/operator	-
Oman	100 MHz/(Omantel and Ooredoo)	-
Qatar	200 MHz/operator	800 MHz/operator
Saudi Arabia	100 MHz/operator + 50 MHz for each of the fixed broadband service providers (Go and Salam)	-

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All observed countries in the MENA region are using 3.5 GHz

TECHNOLOGY NEWS

Türkiye Transmits 1st 5G Signal from Homegrown Portable Network

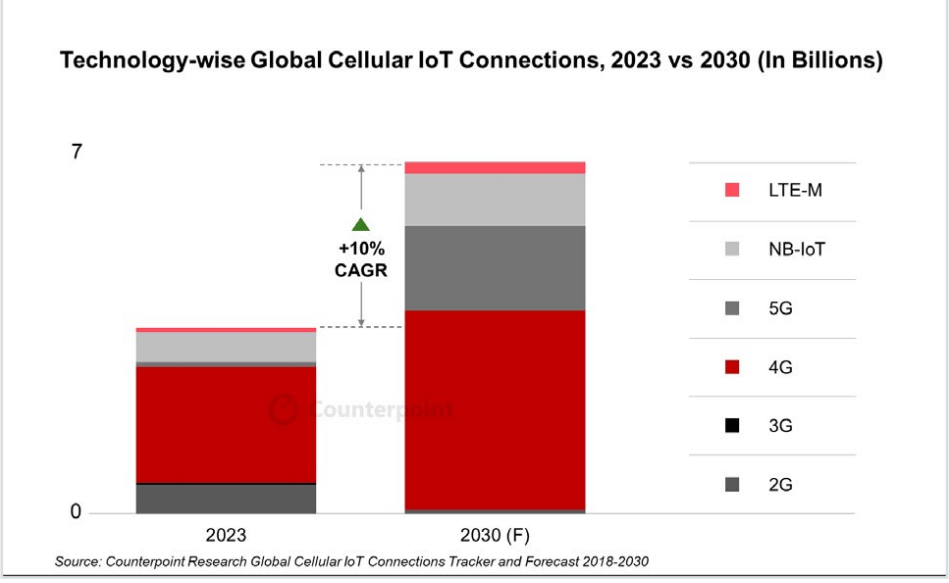
Türkiye received its first signal from a domestically produced 5G portable private network, an official said, in a breakthrough that marked a significant step in the country's ambition to establish a fully independent 5G infrastructure. Transport and Infrastructure Minister Abdulkadir Uraloğlu said Türkiye would hold a 5G auction next year, with the first signal expected in January 2026. ULAK, Türkiye's first indigenous telecom equipment manufacturer, has rapidly advanced its 5G infrastructure in preparation for the nationwide rollout. The company has innovated by making its existing 4.5G base stations portable, expanding their coverage and enhancing digital connectivity across the country. At a 6G conference in Istanbul, ULAK demonstrated the capabilities of its 5G private network, which is composed of locally developed 5G radios, base stations and core network components. The private 5G network is expected to unlock a new era of ultrafast data speeds and robust system capacity, catering to both industrial enterprises and telecommunications operators. During the conference, ULAK successfully transmitted the first 5G signal from the portable network, showcasing its high-speed data capacity and low latency, features that will be critical to the success of future communication systems. "Our tests, conducted both outdoors and indoors, have yielded exceptional speed results," an official from ULAK stated. "We are also accelerating development efforts on the most challenging aspects of 5G radio technology, which will be the backbone of wireless communications systems in the future." The demonstration showed the potential of ULAK's 5G network to handle massive data flows, a key feature for industries ranging from manufacturing to health care, where low-latency and high-speed communication are essential. ULAK General Manager Ruşen Kömürcü highlighted the significance of the achievement, noting the successful execution of the first closed-circuit 5G demonstration. "With special authorization from the Information and Communication Technologies Authority, we broadcast on the 3.5 GHz frequency, showcasing ULAK's fully domestic 5G private network," Kömürcü said. The revealed the network's speed of 1.4 gigabytes per second. Kömürcü emphasized that the 5G network will deliver speeds up to 50 times faster than the current 4.5G technology in use. ULAK's development of indigenous technology reflects Türkiye's broader ambition to establish a self-reliant telecommunications sector, reducing dependency on foreign tech providers. Kömürcü emphasized that ULAK currently operates approximately 3,000 4.5G base stations across the country and is preparing to roll out 5G technology following the official auction. "Our locally produced 5G technology will be ready when the time comes," he added. "The software, base stations and hardware here are produced nationally. From this point of view, we can say that the end-to-end 5G project has been completed."

US, India Plan a Game-Changing Chip Factory

Indian ambitions to become a chip-making powerhouse took a huge step forward as it agreed to establish a manufacturing plant in league with the US. Narendra Modi, the Prime Minister of India, agreed the joint development with US President Joe Biden during a visit to the nation. The plant will focus on producing infrared, gallium nitride and silicon carbide semiconductors, with funding from the government-backed India Semiconductor Mission along with a partnership between the US Space Force, and specialist companies 3rdiTech and Bharat Semi. The US declared the arrangement a "watershed", pointing to ongoing efforts between the nations to shore up semiconductor supply chains by advancing R&D and manufacturing, including a move by chip maker GlobalFoundries to establish a facility in Indian city Kolkata focused on "game-changing advances" in products for vehicles, the IoT, AI and data centers. GlobalFoundries "plans to explore longer-term cross-border manufacturing and technology partnerships with India", the US stated, pointing to potential job creation benefits for both nations. The premiers outlined a partnership between various government departments involving the International Technology Security and Innovation fund, which US government information explains forms part of the CHIPS and Science Act and provides up to $100 million per year over a five-year span to the Department of State to develop and implement "secure and trustworthy telecommunications networks, and ensure semiconductor supply chain security and diversification". Modi and Biden unveiled the commitment during the fourth Quad Leaders' Summit, a meeting between the leaders of the US, India, Japan and Australia. The meeting comes as India is upping its capabilities in the semiconductor sector as part of a broader economic growth plan.

Cellular IoT Connections, Revenues to Almost Double by 2030

The number of global cellular IoT connections jumped 24 percent in 2023 to finish the year at 3.3 billion; the number will increase by 88 percent (at a compound growth rate of 10 percent per year) to reach 6.2 billion by 2030. So says Counterpoint Research, which has updated its IoT Connections Tracker to also forecast that total revenues from cellular IoT will surpass $26 billion by 2030 – which is up 90 percent from $13.7 billion in 2023, which is up 17 percent, in turn, on 2022. The average revenue per user (ARPU) on cellular IoT connections has continued to decline, but should stabilize in the "latter part of the decade", said the firm. At the end of 2023, China retained the lion's share (almost 70 percent) of the cellular IoT market with 2.3 billion connections; the figure, up 26 percent on 2022's count, surpasses the number of mobile phone subscribers in the country. At the same time, China only contributes about 36 percent of global cellular IoT revenues. Mohit Agrawal, research director at Counterpoint, commented: "China continues to roll out low-cost IoT plans for rapid deployment. A sizable portion of connections in China operate on 2G and NB-IoT networks, with ARPUs lower than $2.2 per year. Looking ahead, we expect ARPUs to stabilize, particularly with the advent of 5G and growth of 4G Cat-1 bis solutions as China will continue to expand its connections into the automotive, smart meters, and smart retail sectors." Counterpoint expects 5G to account for nearly 50 percent of cellular IoT revenues by 2030, catering to high-demand applications including autonomous vehicles, industrial automation, and immersive smart cities, it said. But connected cars, utility meters, and retail equipment, mostly POS devices, dominate, in terms of IoT applications; and they will account for more than 60 percent of the market by the "end of 2030". "These sectors will drive the growth of IoT, transforming industries with real-time connectivity and efficiency," it wrote. It added: "The market is highly consolidated, with the top 10 operators dominating absolutely. This trend is expected to continue for a while. However, operators from emerging regions are gaining momentum. As digitization and network expansion accelerate, these regions are set to grow their IoT subscriber bases, driven by rising demand for IoT solutions." Siddhant Cally, research analyst at Counterpoint, said: "We are witnessing a significant increase in cellular IoT use cases such as utilities and connected vehicles. Many emerging nations are implementing digital transformation plans that prioritize the deployment of public service solutions. The advent of 5G will play a crucial role in driving connectivity-based revenues, as operators capitalize on the potential of massive machine-type communications (mMTC), particularly as 2G and 3G technologies are phased out."



China Has Invested $6.1 Billion in Data Center Projects, Govt Says

China has invested more than 43.5 billion yuan ($6.1 billion) in data center investment over the past two years, according to an official statement. The funds have paid for the construction eight computing hubs as part of China's "East Data, West Computing" initiative, launched in 2022 by Chinese National Development and Reform Commission (NDRC). The concept involves storing data in the more economically developed eastern regions of China, where digital and industrial activity is concentrated, and processing it in the western regions, which have plenty of land and energy but lower data demand. The $6,1 billion investment includes the deployment of three server hubs on China's populous east coast and five hubs in China's central/western corridor. Speaking at a big data expo in Guiyang, in southwest China's Guizhou Province, Liu Liehong, the head of the National Data Administration, reported that total investments linked to the hubs deployment had surpassed 200 billion yuan ($28.2 billion). He also mentioned that the number of data center racks now exceeds 1.95 million. This project is a critical element of China's digital infrastructure strategy, aiming to boost the capacity of inland areas to store and manage data. China also has plans to create 10 national data center clusters as part of this broader effort. The push comes as the country has faced tight sanctions from the US, which have included exports of some advanced computing products. As computing power is emerging as a vital productive force in the digital economy, Liu explained that China will support cities in exploring new approaches over the next few years to determine the most effective solutions for data infrastructure development countrywide.

REGULATORY NEWS

Nigeria's NCC Introduces Device Management System to Combat Phone-Related Crime

Regulator the Nigerian Communications Commission (NCC) has introduced a device management system (DMS). The NCC DMS is described as a comprehensive central equipment identity register (CEIR) aimed at managing and regulating mobile devices accessing the country's communication networks. The initiative is designed to ensure stricter control over mobile devices, to enhance security, and to promote compliance with established regulatory standards. It will act as a central database for tracking devices across all mobile network operators (MNOs) in Nigeria. By registering and monitoring device access, the NCC says it seeks to curb the use of unapproved devices and prevent issues such as phone theft and fraudulent activities involving mobile devices. The regulator explains that the NCC-DMS will acquire the international mobile equipment identity (IMEI) of all devices on the communication network and synchronize with international databases of IMEI repositories. Thus, the NCC-DMS will maintain a registry of all communication devices available in the country. All MNOs in the country are legally obliged to connect to the system. A registration fee structure will be applied to every device registered. News resource Nairametrics says the NCC first announced plans to deploy the DMS in 2021. Among the reasons given were "to curtail the counterfeit mobile phone market, discourage mobile phone theft, enhance national security, protect consumer interest, increase revenue generation for the government, reduce the rate of kidnapping, mitigate the use of stolen phones for crime, and facilitate blocking or tracing of stolen mobile phones and other smart devices". Every reported IMEI for stolen and illegal mobile phones and other smart devices will be blacklisted and shared with all operators across all networks, meaning the blacklisted devices will not work in any Nigerian network.

New UN Initiative to Reduce Disaster Risk with AI

A new United Nations initiative aims to ensure that advanced digital technologies in fields such as artificial intelligence (AI) boost resilience to natural hazards and reduce disaster risks. The Global Initiative on Resilience to Natural Hazards through AI Solutions is led by the International Telecommunication Union (ITU), the UN Environment Program (UNEP), the UN Framework Convention on Climate Change (UNFCCC), the Universal Postal Union (UPU), and the World Meteorological Organization (WMO). The initiative will explore AI use cases, provide expert guidance, and support research, innovation, and standards development amid increasing climate volatility and disaster risks worldwide. It also aims to create an AI readiness framework to assess and improve national capacities for using AI in disaster management. "Technical standards are key to ensuring AI is used safely, responsibly and equitably in disaster management – a field where decisions must be made quickly and carefully," said ITU Secretary-General Doreen Bogdan-Martin. Participation is open to all interested experts. "This reinforces our work to promote AI-based resilience through Early Warnings for All – the groundbreaking push to protect everyone on Earth with timely disaster alerts by 2027," Bogdan-Martin said. The Early Warnings for All subgroup on AI, led by ITU, also involves WMO, the United Nations Office for Disaster Risk Reduction (UNDRR), and the International Federation of Red Cross and Red Crescent Societies (IFRC).

Keeping up momentum on AI-driven disaster response

The new Global Initiative builds on the work of a focus group launched by ITU, WMO, and UNEP in 2021. That focus group analyzed promising applications of AI for disaster management,

curated 27 use cases, and laid the groundwork for new international standards. Its studies explored AI-enabled advances in data collection and handling, the modelling of natural hazards and disasters, and emergency communications.

Roadmap, glossary and expert guidance

The resulting standardization roadmap outlines relevant existing standards, along with areas of demand to be met by new standards. The former ITU-WMO-UNEP Focus Group on AI for Natural Disaster Management also delivered a glossary of terms and definitions. In addition, the group provided expert guidance on curating data sets for AI, the training and evaluation of AI-based models, and integrating AI into disaster-management tools. Examples include tools for alerts and early warnings, forecasting, hazard mapping, and decision-support systems.

ComCom to Consider Deregulation of Fiber Services at a Later Stage

The Commerce Commission is seeking feedback on its draft decision that it is too early to investigate the deregulation of fiber (UFB – Ultra Fast Broadband) services. "Our preliminary view, just three years into the new regime, is that there's not enough competitive constraint on fiber for there to be any serious question of deregulation at this time," said Telecommunications Commissioner, Tristan Gilbertson. "Fiber providers occupy a near monopoly position in their markets, with the incentive and ability to act contrary to consumer interests, unless there's enough competition from alternative technologies to hold them back." Mr. Gilbertson says that the predominant competing technology, 4G wireless broadband, does not exert sufficient competitive constraint on the significant market power of fiber providers. "4G wireless broadband is limited in its ability to constrain fiber – particularly given the increasing gap between what Kiwi consumers want from their broadband service and what 4G wireless broadband can deliver." Mr. Gilbertson said the Commission is concerned that, if regulation were removed prematurely, fiber providers would be able to increase prices or reduce quality – or both – to maximize profits at the expense of consumers. "It's therefore in the best interests of consumers that current regulation remains in place for now – so that Chorus continues to invest in providing world class services at reasonable prices. "Regulation is designed to promote the long-term interest of consumers and outcomes consistent with an effectively competitive market – as seen in our final decision last week on Chorus' expenditure for the next four years. This will see Chorus invest $1.722 billion in its network over the next four years but protect consumers from $172.6 million of unjustified expenditure that would have flowed through to higher prices." If confirmed in the final decision, regulation would continue to apply to wholesale UFB fiber services, with deregulation next to be considered before 2029. "We'll be keeping a close eye on the development of 5G wireless broadband services going forward. They narrow the gap between what most consumers want in terms of speed and performance and what wireless broadband can deliver – so they're a potential game changer. However, for now, they're still in the early stages of being rolled out and their potential hasn't yet been demonstrated." Submissions on the Commission's draft decision are due by 5pm on 24 September 2024 and can be made through the Commission's infrastructure regulation mailbox. Cross-submissions on matters raised by other parties are due by 5pm, on 15 October 2024. The final decision will be made by Q4 2024. New Zealand's fiber networks were built by four regulated fiber wholesalers — Chorus, Enable, Northpower, and Tuatahi — in partnership with the Government under its Ultra-Fast Broadband (UFB) initiative. These networks are now regulated through a price-quality and information disclosure regime, introduced in 2022, following amendments to the Telecommunications Act (Act). Enable, Northpower, and Tuatahi are subject to information disclosure regulation only, while Chorus (as the largest fiber provider) is also subject to price-quality regulation. The Commission is in the process of determining Chorus' price-quality path for the second regulatory period covering 2025-2028. The fiber (UFB) regime is intended to incentivize regulated fiber wholesalers to act in the best interests of consumers and to promote competition in telecommunications markets. Information disclosure requirements exist to ensure that sufficient information is available for people to assess whether this is being achieved. Price-quality regulation allows the Commission to set the maximum revenue Chorus can earn from its customers and the minimum quality standards it must meet. The Commission must consider whether there are reasonable grounds to start a fiber fixed line access services deregulation review under s 210(3) of the Act before each regulatory period. The current review must therefore be complete by 1 January 2025, and the next by 1 January 2029. There are seven fiber fixed line access services subject to regulation – including the principal service used to deliver fiber broadband services to Kiwi homes (Bitstream PON).

Findings on 5G Licensing Fees Among Arab Telecom Regulators

Arab Advisors Group released a new telecommunication report entitled "5G Licenses in MENA: Fees, Awarding Terms, and Obligations". The report presents the awarding status of 5G licenses across 19 Arab countries, as well as commercial launches of the technology. Arab Advisors Group digs deeper into awarding terms, fees, and obligations enforced by telecom regulators in the region. 5G is gaining prominence around the world, as the appetite for ultra-fast, robust Internet continues to rise. 5G is a necessity for any country aiming to become more digitised. Telecom regulators are vital digitization enablers, and hence are obliged to completely fulfill their rolls, among which is spectrum licensing. Arab Advisors Group released a new report that overviews 5G licensing status across 19 Arab countries and sheds light on 5G commercial launches. In its report, Arab Advisors Group further analyzes 5G awarding fees, terms, and obligations imposed by Arab telecom regulators. The report provides valuable insights that can serve as a benchmark for operators and regulators in countries that have yet to award 5G licenses, enriching those looking to make data-driven decisions. "The release of the 5G Licenses in MENA report aligns with Arab Advisors Group's ongoing commitment to examining pressing issues in the telecom sector. Since 2017, Arab Advisors Group has been monitoring advancements made in the MENA 5G market; our analysts have produced reports overviewing 5G preparatory measures, trials and tests, partnerships among telecom stakeholders, commercial launches and expansions, telcos' 5G marketing and pricing strategies, to name a few. The 5G Licenses in MENA report aids telecom operators and regulators in assessing their 5G roadmaps by providing them with insights into the steps taken by pioneers in the region, enabling them to mirror their success." commented Hiba Rabadi, Arab Advisors Group's Managing Director.

SUBEX

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A SNAPSHOT OF REGULATORY ACTIVITIES IN THE SAMENA REGION

Afghanistan

The Afghanistan Telecommunications Regulatory Authority (ATRA) has begun the construction of 16 new telecommunications centers in Faryab Province, with an investment of $1.6 million USD. At a ceremony marking the project's launch, Faryab Governor Mullah Abdul Ahad Fazli emphasized that these centers will greatly alleviate the telecommunications challenges faced by residents in the province's districts. He highlighted that this initiative is part of the government's broader strategy to enhance telecommunications infrastructure in remote and underserved areas, aiming to provide faster and more reliable communication services to these communities. Governor Fazli also noted that the project is expected to significantly improve the quality of telecommunications services in these regions, addressing long-standing communication issues that have plagued the local population. Hafiz Mohammad Sabet Numan, head of ATRA's Northern Zone, provided further details on the initiative, stating that the centers are specifically designed to address telecommunications problems in 13 districts of Faryab that have historically struggled with inadequate communication services. He added that this project underscores the government's commitment to improving quality of life and developing essential infrastructure throughout the country, particularly in Faryab, thus playing a vital role in enhancing connectivity and bridging communication gaps between different regions.

(August 12, 2024) www.meatechwatch.com

Algeria

In a bid to accelerate its digitization process, the Algerian government is developing a comprehensive roadmap to guide this transformation. High Commissioner for Digitization Meriem Benmouloud announced on Monday that Algeria is set to implement a new digital transformation strategy, with the final draft submitted to President Abdelmadjid Tebboune for approval in June. This strategy, the first of its kind for Algeria since gaining independence, aims to transition from paper-based to digital management, increase transparency, reduce bureaucracy, broaden access to information, and boost economic performance while maintaining high service quality. The five-year plan, which concludes in 2029, is built on two main pillars: a forthcoming digitization law and enhanced information and cybersecurity measures. The new law will establish a regulatory framework for the digital sphere, streamline bureaucratic processes, and address technological gaps. The government will collaborate with the Ministry of National Defense to bolster information and cybersecurity. President Tebboune has championed the digital transformation project as a key driver of sustainable local development. Launched in 2019, the initiative has made significant strides over the past two years, overcoming resource constraints, bureaucratic hurdles, and sector complexities. According to the latest International Telecommunication Union report, Algeria's ICT development has seen significant acceleration. The country climbed 14 places in the ICT Development Index, now ranking 88th out of 169 nations. Algeria's score of 77.8 points surpasses the averages for Africa (47.4), the Arab region (74.5), and middle-income countries (62). (July 26, 2024) www.meatechwatch.com

Bahrain

The Telecommunications Regulatory Authority (TRA) of Bahrain successfully concluded the International Telecommunication Union (ITU) Digital Skills Forum, a three-day event focused on advancing global digital skills. The forum, which was hosted at the Gulf Convention Centre, Gulf Hotel, saw participation from prominent international leaders, government officials, and industry experts. The closing ceremony was attended by international regulators, alongside distinguished speakers and guests. The forum featured a diverse range of sessions that highlighted critical areas such as digital transformation, skill gaps in the digital economy, and the development of national digital skills frameworks. In his concluding remarks, Philip Marnick, General Director of TRA Bahrain, expressed his appreciation for the contributions of all participants and emphasized Bahrain's

continued commitment to digital leadership. "Bahrain is honored to lead in this global initiative. The insights and collaborations fostered during this forum will undoubtedly boost efforts to bridge the global digital skills gap," said Marnick. "As the ITU Digital Skills Forum concludes, Bahrain stands tall as a digital skills leader, solidifying its position as a highly advanced digital nation in the region. Through such forums, Bahrain reinforces its role in shaping the digital future, dedicated to including everyone in the digital age." (September 21, 2024) www.tra.org.bh

Bahrain has been recognized as a global leader in cybersecurity, securing a Tier 1 ranking in the 2024 Global Cybersecurity Index (GCI) by the International Telecommunication Union (ITU). Among 194 countries, Bahrain's commitment to robust digital security has distinguished it on the international stage. His Excellency Shaikh Salman bin Mohammed Al Khalifa, CEO of the National Cyber Security Centre, credits this success to the comprehensive support from His Majesty King Hamad bin Isa Al Khalifa and the proactive initiatives by His Royal Highness Prince Salman bin Hamad Al Khalifa, Crown Prince and Prime Minister. Additionally, Shaikh Salman highlighted the efforts of His Highness Major General Shaikh Nasser bin Hamad Al Khalifa, National Security Advisor and Commander of the Royal Guard, in enhancing Bahrain's digital infrastructure and cybersecurity capabilities. This high ranking reflects Bahrain's commitment to strong data protection practices, network security, and advanced technological infrastructure. Aligned with the National Cybersecurity Strategy, Bahrain aims to ensure a secure and resilient cyber environment, fostering innovation and developing national expertise in line with Bahrain Economic Vision 2030. The GCI evaluates nations based on legal, technical, regulatory, capacity development, and cooperation criteria, where Bahrain achieved nearly perfect scores, excelling in four of the five categories.
(September 16, 2024) www.meatechwatch.com

Bahrain's telecommunications sector continued its strong performance in the first quarter of 2024, with key indicators showing significant growth compared to the same period in 2023, according to the Telecommunications Regulatory Authority (TRA). The mobile subscriber base expanded notably, increasing from 2,152,591 in Q1 2023 to 2,449,728 in Q1 2024, reflecting a 13.8% growth. This surge also drove mobile penetration up from 136% to 155%, indicating deeper market reach. A closer look at mobile subscriptions reveals growth in both prepaid and postpaid segments. Prepaid subscriptions rose by 7.8% to 1,559,011, while postpaid subscriptions saw a significant 26.3% increase, reaching 890,717 by the end of Q1 2024, up from 705,172 in Q1 2023. The broadband sector also experienced notable progress. Mobile broadband subscriptions increased from 2,304,132 in Q1 2023 to 2,375,854 in Q1 2024, marking a 3.1% growth, while mobile broadband penetration rose from 146.1% to 151%. Fiber broadband subscriptions, essential for high-speed internet, grew from 167,434 in Q1 2023 to 169,709 in Q1 2024, supporting the growing demand for data-intensive services. Total data consumption surged by 10.2%, from 431 Petabytes in Q1 2023 to 475 Petabytes in Q1 2024, highlighting the increasing reliance on data services. Despite the growth in mobile and broadband sectors, the traditional fixed telephony market saw a slight decline, with subscriptions dropping from 216,678 in Q1 2023 to 209,628 in Q1 2024, indicating a shift towards mobile and wireless communication. An expert noted that the rising demand for data and the steady improvement in fiber broadband infrastructure signal a promising future for Bahrain's telecommunications sector. (August 8, 2024) www.meatechwatch.com

The Telecommunications Regulatory Authority (TRA) announced the publication of an updated Technical Specifications document for various wireless applications. The document aims to bolster the Kingdom's infrastructure capabilities in embracing the latest advancements and trends in the field of communications. It includes the authorized specifications for the use of Next-Gen Wi-Fi 7. The TRA remains committed to fostering a dynamic and innovative telecoms sector in Bahrain, while maintaining its position as a leading regional hub for Information and Communication Technology (ICT). The Authority actively seeks to establish and maintain open communication channels with industry leaders to ensure that regulations and infrastructure are aligned with the latest technologies, thereby benefiting the community.
(July 26, 2024) www.tra.org.bh

Bangladesh

Bangladesh has ascended 11 spots to become the top-ranked least developed country in the 2024 United Nations E-Government Development Index (EGDI), now holding the 100th position globally among 193 countries. This marks a significant rise from its 111th rank in 2022. The improvement is highlighted in the "E-Government Survey 2024: Accelerating Digital Transformation for Sustainable Development," released by the UN Department of Economic and Social Affairs on September 18th. The country achieved an EGDI score of 0.6570, surpassing both the South Asian average of 0.5855 and the global average of 0.6382. This progress is largely attributed to advancements in online services and telecommunications infrastructure over the past two years. Among the least developed nations, Bangladesh leads, followed by countries like Bhutan, Rwanda, and Nepal. In the South Asian region, while the Maldives holds the top spot with a global ranking of 94th and a score of 0.6745, Bangladesh is fourth, ahead of Bhutan, Nepal, Pakistan, and Afghanistan. Globally, Denmark, Estonia, and Singapore lead the rankings, showcasing excellence in online services, telecommunications, and human capacity. The EGDI, a composite index, evaluates nations based on three key metrics: the Online Services Index, the Telecommunications Infrastructure Index, and the Human

Capital Index. The 2024 survey emphasizes the rapid yet uneven pace of digital transformation across the world, noting significant strides in digital governance fueled by investments in robust infrastructure and cutting-edge technologies. Despite these advances, challenges persist globally in harnessing these technologies for enhancing public services and civic engagement, which are essential for achieving Sustainable Development Goals. Europe currently leads in e-government development, but Asia is making rapid progress, with countries like Bangladesh and India significantly improving their EGDI values, contributing to a notable decrease in the global population lagging in digital government development—from 45% in 2022 to 22.4% in 2024.

(September 19, 2024) www.meatechwatch.com

Bangladesh's first telecom operator, Citycell, has requested the return of its cancelled license. Pacific Bangladesh Telecom Ltd, Citycell's owner, made the request in a letter sent to the Bangladesh Telecommunication Regulatory Commission (BTRC) on September 1, according to media reports. It asked for the return of both the operating and radio equipment licenses. In the letter, the company claimed that its frequency had been initially suspended due to political vendetta, blaming former state minister for telecommunications Tarana Halim for this. Subsequently, the license was cancelled while the matter was still under judicial consideration, according to the company. At the time, the BTRC had said Citycell's license had been revoked due to unpaid dues amounting to Tk218 crore. Pacific Telecom mentioned that shutting down Ciycell's frequency had resulted in losses amounting to around Tk4,000 crore over the past eight years, including bank loans, unpaid employee wages and infrastructure damage. It said the telecom operator could have generated approximately Tk2,000 crore in revenue had its operations not been halted, adding that the government had missed out on approximately Tk430 crore in taxes and fees. Pacific Telecom's head of regulatory and corporate affairs, Nishat Ali Khan, said the matter was still under judicial consideration, and therefore, the BTRC could not cancel the license. Citycell was the only mobile operator in the country using CDMA technology. The BTRC shut down Citycell's frequency on June 11, 2017.

(September 11, 2024) www.dhakatribune.com

The number of internet subscribers in Bangladesh surged by a massive 2.6 million in May, one of the biggest jumps in recent years, with mobile data users making up a bulk of the new customers. During this period, the total number of internet users reached 141.28 million, of them mobile internet subscribers reached 127.84 million and broadband internet subscribers stood at 13.44 million, according to the latest data of the Bangladesh Telecommunication Regulatory Commission (BTRC). The number of mobile internet subscribers jumped from 125.15 million in April to 127.84 million in May. However, the number of broadband internet users remained same during the period. After six months of continuous decline, the number of mobile internet subscribers in the country increased by 1.17 million at the end of February. On the other hand, the number of broadband internet subscribers increased from 12.88 million in February to 13.44 million in March. During this period, mobile phone operators in the country added 1.36 million new subscribers, bringing the total number of subscribers to 195.09 million in March. The number of subscribers for each mobile operator--Grameenphone, Robi Axiata, Banglalink Digital Communications, and Teletalk Bangladesh stood at 84.91 million, 58.88 million, 44.73 million, and 6.57 million respectively, at the end of May, according to the data.

(July 4, 2024) www.thefinancialexpress.com.bd

Egypt

Egypt's mobile phone market saw a strong recovery in June 2024 after a temporary dip in May, caused by delays in implementing a new numbering plan. Official data released on Thursday revealed that mobile subscriptions in the country increased by 581,000, bringing the total to 58.834 million subscribers by the end of June. This marks a notable comeback for the sector following the challenges associated with the new numbering system. The latest data underscores a steady upward trend in mobile adoption across Egypt, showcasing the country's rapid digital transformation. Compared to the same period last year, Egypt's top three mobile operators collectively had 43.5 million subscribers, highlighting significant year-on-year growth in mobile usage. This surge in subscriptions not only emphasizes the growing reliance on mobile services but also indicates a positive outlook for further technological integration into the Egyptian economy. As mobile connectivity continues to expand, it is expected to play a vital role in advancing the nation's broader digital strategy.

(September 4, 2024) www.meatechwatch.com

According to the global broadband pricing league by Cable, Egypt is ranked fifth worldwide for its low average monthly internet cost of $8.31. This places Egypt ahead in affordability compared to many other countries, with Sudan leading in Africa and ranking first globally with a cost of $2.40 per month. Zimbabwe also stands out in Africa, ranking third, but globally it is 11th with a cost of $9.64 per month. Africa's youthful population, with many countries having over 50% of their population under 25, is poised to drive innovation, entrepreneurship, and social change, bolstered by the accessibility of affordable broadband. This connectivity is essential for the rapid adoption of technology across the continent. Further data from Egypt indicates significant advancements in internet accessibility and usage. The Speed Test Global Index from November 2023 places Egypt 77th globally with an average fixed broadband speed of 94.53 Mbps. Additionally, the Egyptian Ministry of Communications and Information Technology's March 2023 quarterly report highlights a rise in mobile subscriptions by 6.1 million from the previous year, reaching 106.2 million.

(August 20, 2024) www.meatechwatch.com

Iraq

Ali Al-Moayyed, Chairman of the Communications and Media Commission (CMC) of Iraq, has formally invited Doreen Bogdan-Martin, Secretary-General of the International Telecommunication Union (ITU), to visit Iraq. This invitation aligns with Iraq's goal to bolster international cooperation and advance its digital transformation initiatives. During a meeting on the sidelines of the Future Summit in New York, Al-Moayyed and Bogdan-Martin discussed various aspects of Iraq's digital strategy, including the modernization of its telecommunications infrastructure and alignment with global technological trends. The discussions, as reported by the Iraqi News Agency (INA), emphasized Iraq's efforts in digital transformation, artificial intelligence, cybersecurity, electronic payments, and banking sector reforms—all crucial for integrating into the global digital economy. A significant topic of their dialogue was addressing Iraq's persistent digital divide. The leaders explored strategies for universal service projects and the recent advancements in Iraq's telecommunications and IT sectors. Al-Moayyed stressed the importance of international cooperation to achieve digital inclusivity across Iraq. Highlighting Iraq's youthful and technologically adept population, Al-Moayyed underscored the importance of ITU's support in nurturing a culture of innovation and entrepreneurship. He advocated for targeted capacity-building initiatives, particularly focusing on training human resources and bolstering the private sector and startups, which are vital for Iraq's digital future. In her response, Bogdan-Martin expressed the ITU's steadfast commitment to supporting Iraq's digital journey. She lauded the CMC's achievements in enhancing Iraq's telecom and IT infrastructure and reaffirmed the ITU's readiness to provide ongoing technical and regulatory guidance. Bogdan-Martin emphasized the ITU's role in policy shaping and regulatory refinement, ensuring Iraq's technological advancements lead to sustainable and secure digital growth. Furthermore, Bogdan-Martin assured continued collaboration, with her team maintaining active communication with the CMC to support the success of their joint initiatives.

(September 24, 2024) www.meatechwatch.com

Jordan

Jordan has achieved a remarkable milestone in digital payments, registering transactions worth 19.2 billion dinars in just the first eight months of this year, according to a report from the Jordan Payment and Clearing Systems Company (Jopac). This figure represents a 54% increase compared to the same period last year, when transactions totaled 12.5 billion dinars. The monthly report from Jopac highlights significant growth across various digital payment systems. The "Click" system led with 7.23 billion dinars in transactions, followed by "Jumobi" at 3.37 billion dinars, and "eFAWATEERcom" topping the charts with 8.56 billion dinars. Notably, "Click" and "Jumobi" were predominantly used for money transfers, accounting for over 80% of their combined transaction value, while "eFAWATEERcom" was mainly used for payments to government entities. The total volume of transactions also reached a new high, with approximately 125.11 million transactions recorded across all platforms in the same period. Breakdowns reveal that "Click" processed about 16.1 million transactions, "Jumobi" managed over 15.4 million, and "eFAWATEERcom" saw about 33.5 million transactions. The surge in digital transactions is mirrored by an increase in system users, indicating a shift towards electronic payment solutions among Jordanians for their convenience and efficiency. By the end of August, "Click" had registered around 1.52 million users. This growth is reflective of a broader adoption of digital financial transactions in Jordan, driven by technological advancements and enhanced consumer preferences for digital solutions. This transformative growth in Jordan's financial sector showcases the country's rapid adaptation to and integration of digital payment technologies, setting new benchmarks in the industry. (September 18, 2024) www.meatechwatch.com

The National Cyber Security Centre (NCSC) launched the National Dialogue on the National Cyber Security Strategy 2024-2028 at an event held at the Royal Jordanian (RJ) headquarters. The event, attended by Deputy Prime Minister for Economic Affairs and Minister of State for Public Sector Modernization Nasser Shraideh, unveiled the vision for Jordan's cyberspace: "A safe, reliable, and resilient Jordanian cyberspace, relying on national capabilities, and enhancing the economy and societal welfare."

Key Strategic Priorities:

1. Security and Reliability: Ensuring a secure digital environment.
2. Cyber Resilience: Building capabilities to withstand and recover from cyber threats.
3. Cyber Transformation: Enabling digital transformation through robust cyber security measures.
4. Cooperation and Partnerships: Fostering collaboration between public and private sectors.

NCSC President Bassam Maharmeh emphasized that the new strategy supports national digital transformation plans and aligns with the Economic Modernization Vision's goal of providing future services. He highlighted the importance of a secure digital environment in attracting investments and enhancing Jordan's reputation as a security haven.

Key Announcements:

- Digital Transformation Unit: Nasser Shraideh announced the establishment of a digital transformation unit at the Prime Ministry to support cyber security and data protection efforts.
- Aviation Sector Focus: RJ Vice Chairman/CEO Samer Majali underscored the critical need for cyber security in the aviation sector to protect passenger data and ensure operational continuity.
- Strategic Collaboration: Jordan Strategy Forum CEO Nisreen Barakat expressed commitment to enhancing Jordan's cyber security system through collaboration with the NCSC.

The strategy targets individuals, government institutions, critical infrastructure, and the business sector, aiming to create a secure and reliable digital environment that promotes economic growth and societal welfare.

(July 17, 2024) www.meatechwatch.co

Kuwait

The Communications and Information Technology Regulatory Authority (CITRA) announced the launch of new frequencies in preparation for the inauguration of the advanced fifth generation (5GA) technology, which is the latest and highest-level technology in the telecommunications network sector. Acting Chairman of the Communications and Information Technology Regulatory Authority (CITRA) Abdullah Al-Ajmi said in a press statement during a trial show organized by the Authority to launch these frequencies that the third generation telecommunications network services will be stopped within a maximum period of June 2025 and that they will be used to support and develop fourth and fifth generation telecommunications technologies. Al-Osaimi added that the advanced fifth-generation technology will enhance the state's leadership position in adopting the latest modern technological developments and represents a qualitative leap in supporting contemporary digital services, applications, and continuous improvement of the user experience of mobile telecommunications network services. He explained that this modern technology will support increasing the capacities of mobile telecommunications networks, allowing a larger number of fifth-generation subscribers to enjoy high-quality services, noting that this technology is a step towards enabling the use of modern applications related to the Internet of Things, artificial intelligence, virtual and augmented reality, 3D video, and cloud services. He pointed out that these developments will support the needs and applications of smart cities and facilitate the transfer of data at ultra-high speeds in future projects, reaching 10 gigabits per second, thus benefiting various government, industrial, and commercial sectors, in addition to individuals.

(August 27, 2024) www.kuwaittimes.com

Morocco

Morocco is focusing on building a skilled workforce to support its digital transition by aligning graduate skills with the demands of the digital economy. On September 20, the Moroccan Ministry of Digital Transition and Administrative Reform signed a partnership agreement with the Foundation for Research, Development, and Innovation in Science and Engineering (FRDISI) to advance research and development in digital transformation. As part of this initiative, 18 doctoral thesis projects will receive support, including a monthly stipend of 7,000 dirhams (around $722), along with guidance and supervision over three years. This agreement is a key element of Morocco's forthcoming national digital strategy, "Morocco Digital 2030," which will focus on training 45,000 digital talents annually, transitioning 50,000 young people into digital professions, and attracting 6,000 foreign talents each year. The strategy emphasizes investing in youth, particularly doctoral candidates, to drive innovation and research that will enhance Morocco's international competitiveness. By fostering a workforce capable of meeting market demands and sharing expertise, Morocco aims to position itself as a global leader in the technology sector, attract foreign investment, and encourage the development of innovative solutions.

September 24, 2024) www.meatechwatch.com

The Commercial Court of Appeal in Casablanca has upheld a previous ruling ordering Maroc Telecom to pay 6.3 billion Moroccan dirhams (US$635 million) in compensation to competitor Wana Corporate (known commercially as Inwi) for unfair competition practices. The case began in 2021 when Inwi accused Maroc Telecom of abusing its dominant position in the Moroccan market leading to profit losses for Inwi. The Commercial Court of Rabat ordered Maroc Telecom to compensate Inwi in January 2024, and Maroc Telecom said it would appeal, but has now lost the case in the appeals court. The fine is more than Maroc Telecom's 2023 net profit of MAD6.1 billion (US$615 million).

(July 4, 2024) www.connectingafrica.com

Nepal

Nepal has seen its number of 4G users reach 22.23 million, according to the latest MIS report by the Nepal Telecommunications Authority (NTA) for Ashar, 2081. Despite a slight decline from the previous month, mobile broadband now comprises 76.23% of the market, dominated by Nepal Telecom and Ncell. In Ashar, 2081, the figure stood at 22,232,416, showing a decrease of 240,025 users from Jestha, 2081, where the number was 22,472,441. This change reflects the dynamic nature of mobile telecommunications but underscores the strong presence of 4G technology in the region. Both state-backed Nepal Telecom (Ntc) and private operator Ncell continue to lead in the 4G domain. Ntc reported an increase in 4G subscriptions, adding 124,124 users in Ashar 2081, bringing its total to 15,281,937. Conversely, Ncell experienced a decrease, losing 364,149 subscribers, reducing its count to 6,950,479. These operators not only provide extensive GSM mobile service across Nepal but also enhance the 4G experience with technologies like carrier aggregation, which improves data speed, reduces interference, and cuts latency. As 4G remains prevalent, both Ntc and Ncell are laying the groundwork for the future 5G network, although the launch timeline remains uncertain. Despite their impact on digital transformation and connectivity in Nepal, there is room for improvement in service quality. According to NTA's drive test reports, both providers could enhance their voice and data services significantly. While 4G has become a necessity, enabling high-speed activities like payments and video-calling, some users still cling to older technologies like 2G and 3G. Reasons range from lack of awareness and incompatible devices to concerns over battery and data usage. This situation presents both a challenge and an opportunity for growth in Nepal's telecommunications sector. (September 9, 2024) www.meatechwatch.com

The government has decided to allow Ncell, the private sector telecom giant, to pay its license renewal fee on an installment basis. A Cabinet meeting decided to allow the company to pay the renewal fee in four installments. As per the arrangement, the company can pay Rs5 billion a year, according to Minister for Information and Communication Technology Prithvi Subba Gurung, who is also spokesperson of the government. The telecom company's license is expiring on Sunday. "The company has to pay 10 percent interest rate for three installments while it doesn't apply in the case of the first tranche," Gurung said. "The government will give necessary instruction to the Nepal Telecommunication Authority to implement this decision." The government had given similar installment facilities for license renewal in the past as well. But it hadn't sought interest for the second and third tranches. However, the Office of the Attorney General in its report had advised the government to discontinue this practice saying that it is against the law and causes huge loss to the state coffers. Three months ago, the Ncell had written to the Nepal Telecommunication Authority for an installment option to pay the renewal fee. But the regulatory body had informed the company that the laws of the land don't allow them to do so. The authority had also informed the ministry about the correspondence from the Ncell.

(September 2, 2024) www.kathmandupost.com

The number of 4G users has surpassed 2.08 crore in Nepal. At the same time, mobile broadband has reached 66.28% in market proportion, the Nepal Telecommunications Authority (NTA) highlights in its latest MIS report. The NTA report has it that there are two crore, eight lakh, thirty-two thousand, and three hundred sixty-one 4G users across Nepal as of Chaitra, 2080. The stats marks a slight decrease in the figures as Falgun report mentioned 4G broadband subscriptions at two crore, ten lakh, thirty-six thousand, and nine hundred, and nine. That means, 4G users declined by a slim two lakh, four thousand, five hundred forty-eight between Chaitra and Falgun. The change in figures is common and the gist is that 4G dominates the mobile broadband scene in Nepal courtesy of Nepal Telecom and Ncell. They both have a strong GSM mobile service presence throughout the country and provide a range of data packs for their customers. Also, each features carrier aggregation (CA) which further amplifies their 4G performance for users with faster speeds and low latency. Ntc and Ncell both provide 4G services via their nationwide networks. The state-backed telecom company Ntc boasts one crore, forty-eight lakh, twelve thousand, six hundred, and twenty-nine users as of Chaitra, 2080. It's another delightful increase for the company of one lakh, seventy-nine thousand, four hundred and fifteen subscriptions from Falgun of the same year. Similarly, the private telecom giant Ncell recorded sixty lakh, nineteen thousand, seven hundred, and thirty-two 4G subscriptions in Chaitra, 2080. Unlike Ntc though, the private telco saw its 4G base slightly decrease from sixty-four lakh, three thousand, six hundred, and ninety-five in Falgun. (July 26, 2024) www.nepalitelecom.com

Oman

The Telecommunications Regulatory Authority (TRA) of Oman has introduced a new licensing and permits system on its website, designed to streamline processes for various stakeholders in the telecommunications sector. This innovative system targets licensees, new investors, companies, SMEs, and individuals interested in providing telecommunications services. Developed

in collaboration with the Ministry of Commerce, Industry and Investment Promotion (MOCIIP), Riyada, the Ministry of Labour, and the Oman Chamber of Commerce and Industry (OCCI), the system automates seven essential services related to regulatory obligations. These include permit application submissions and significant reductions in the documentation required for obtaining licenses.

The system enhances efficiency across three licensing categories:

- The first category sees a 77 percent automation in accepting and issuing licenses.
- The second category has reduced required documents from 17 to just 4.
- The third category achieves an automation rate of approximately 76 percent.

Additionally, the system fully automates applications for private communications networks intended for personal use and not connected to the public network. Applications for exploiting and accessing inactive infrastructure have also seen documentation reduced by 100 percent. This streamlined approach not only simplifies and accelerates the application process but also provides clearer information to applicants, significantly enhancing service resolution and reducing bureaucratic hurdles. The initiative is part of Oman's ongoing efforts to foster a more efficient and accessible telecommunications sector. (September 27, 2024) www.meatechwatch.com

The Telecommunications Regulatory Authority (TRA) has initiated a public consultation to address the growing issue of spam and scam messages affecting consumers in Oman. The increase in unsolicited messages has led to heightened user frustration and a rise in complaints. To tackle this problem, TRA plans to introduce new regulations that all telecommunications service providers must adhere to. These regulations will implement measures to safeguard users from scam messages, establish contracting procedures for licensees with SMS aggregators, and regulate the handling of spam and scam messages. Penalties for non-compliance will also be outlined. "Given the rising concerns about cybersecurity, it's crucial for stakeholders to invest in better technology to protect end users," said TRA, noting ongoing collaboration with other entities in Oman to strengthen cybersecurity efforts. Additionally, the Royal Oman Police (ROP) has been urging mobile users to stay cautious, as fraudsters continue to target individuals globally and within Oman, often exploiting them for financial gain through various scam methods. (September 10, 2024) www.meatechwatch.com

The Telecommunications Regulatory Authority (TRA) has reported that total investments in Oman's telecommunications sector reached RO221.9 million in 2023. This investment was distributed across various services, with 37% allocated to fixed telecommunications services, 53.7% to mobile services, and 9.3% to other services. In its annual report, the TRA highlighted the launch of 12 public consultation documents in 2023. These documents were part of efforts to involve beneficiaries and stakeholders, ensuring that the regulatory environment remains flexible and responsive to industry developments. The report also revealed that beneficiaries filed 2,972 grievances in 2023, broken down as follows: 1,860 complaints related to billing, 831 concerned service quality, 111 involved promotional offers, and 170 were about numbers. Throughout 2023, the telecommunications sector expanded broadband coverage across Oman. The number of fifth-generation (5G) stations reached 5,238, while fiber optic networks now cover 773,589 residential units. Additionally, the total number of valid communications permits issued in 2023 stood at 377, which included licenses for tracking and geolocation services, Internet of Things (IoT) services, and the implementation of communications services, among others. The TRA also issued licenses to 15 new companies providing postal services, bringing the total to 63 licensed companies in the sector by 2023. This growth has resulted in over 1,624 new job opportunities, with 1,223 positions filled by Omanis. The year 2023 marked several significant accomplishments for Oman's telecommunications sector. The TRA was recognized among the top government units for the year, achieved high scores in the "Institutional Excellence System" indicators, and received multiple awards, including the Digital Government Award for the Best Digital Community Participation Project from the Gulf Cooperation Council (GCC). The authority also won the Excellence Award in Enabling Market Growth from the SAMENA Telecommunications Council and the Best Institution Achieving Government Digital Transformation Award as part of the Digital Excellence Award in the Government Sector for 2024. (September 5, 2024) www.meatechwatch.com

The Telecommunications Regulatory Authority, in collaboration with licensed telecommunications providers, has announced the commencement of a phased discontinuation plan for third-generation (3G) mobile services, starting from July. This strategic move aims to optimize telecommunications offerings, allocate spectrum resources efficiently, and invest in cutting-edge technologies to enhance service quality. The transition will be implemented gradually to ensure a smooth shift. This decision underscores the increasing importance of modern technologies in telecommunications and the need to effectively utilize available resources to align with global technological advancements, thereby facilitating digital transformation. Moreover, this initiative reflects the rapid evolution of the global telecommunications sector, prompting investments in state-of-the-art technologies. As less efficient networks are phased out, subscribers can expect enhanced service quality and a superior user experience with advanced and innovative networks. (July 1, 2024) www.omanobserver.om

Pakistan

Pakistan has secured a leading position in the International Telecommunication Union's (ITU) Global Cybersecurity Index 2024, ranking among the world's best for cybersecurity measures. According to the report, countries are assessed and categorized into five tiers based on their cybersecurity capabilities, ranging from legal and technical measures to organizational strategies, capacity development, and international cooperation.
The tier system includes:
Tier 1 – Role-modelling (score 95 – 100)
Tier 2 – Advancing (score of 85–95)
Tier 3 – Establishing (score of 55–85)
Tier 4 – Evolving (score of 20–55)
Tier 5 – Building (score of 0–20)
Achieving a score within the 95-100 range, Pakistan is classified in Tier 1, designated for countries that serve as role models in implementing effective cybersecurity practices. Alongside Pakistan in this tier are nations like Australia, Germany, the United States, Bahrain, Italy, and Oman, highlighting Pakistan's significant strides in enhancing its cybersecurity framework.
(September 1`7, 2024) www.meatechwatch.co

The Pakistan Telecommunication Authority (PTA) has received five proposals from international consultants to manage the upcoming 5G spectrum auction, which is expected to be completed within the current fiscal year. The PTA announced that it had received technical and financial bids from five international consultants: Aetha Consulting Limited, Detecon Consulting FZ-LLC, Frontier Economics Limited, KomKonsult (Private) Limited, and the National Economic Research Associates Inc. These bids will be thoroughly evaluated in line with the Public Procurement Regulatory Authority (PPRA) rules. PTA Chairman Hafeezur Rehman, a retired major general, informed the National Assembly Standing Committee on Information Technology and Telecommunications that the 5G spectrum auction is under consideration and is likely to take place by March 2025. The process has been complicated by disagreements within the government. While the IT ministry supports releasing additional spectrum at lower rates to encourage growth, the finance ministry advocates for strong competition among telecom operators to maximize the auction's value. The advisory committee overseeing the process is headed by the finance minister. All major mobile operators in Pakistan, including Zong, Jazz, Telenor, and Ufone, have successfully conducted 5G trials and are currently using 274 MHz of spectrum. However, to commercially launch 5G services, an additional 300 MHz of spectrum will need to be auctioned.
(September 4, 2024) www.meatechwatch.com

PTA, in collaboration with APNIC, organized a series of impactful workshops on “Incident Response and CERT" over three days in Lahore and Islamabad. The Lahore workshop was held in partnership with the Punjab Information Technology Board (PITB), said a news release. Adli Wahid, a Senior Internet Security Specialist from APNIC Australia with extensive experience in cybersecurity across the Asia-Pacific region, led the sessions. Cybersecurity experts from PTA, the National Cyber Emergency Response Team (NCERT), and various telecom operators participated, creating a dynamic exchange of knowledge and expertise. Throughout the workshop, participants delved into theoretical and practical aspects of CERT operations. The sessions included hands-on training in forensic analysis management, equipping attendees with a comprehensive understanding of how to handle and mitigate security incidents. The training concluded with a certificate distribution ceremony, where Muhammad Naveed, Member Finance PTA, Dr. Muhammad Mukarram Khan, Director General of the Cyber Vigilance Directorate at PTA, and Adli Wahid, Senior Internet Security Specialist at APNIC, awarded certificates to all participants. PTA extended special thanks to APNIC for their invaluable support in organizing this event, with both organizations committed to continuing the capacity-building efforts within Pakistan's Internet and cybersecurity community.
(August 7, 2024) www.app.com.pk

PTA National Commission on the Status of Women (NCSW) and Global System for Mobile Communication (GSMA) Action Collation for bridging digital divide, successfully organized a one-day workshop titled "Bridging the Mobile Gender Gap" today at PTA's Headquarters in Islamabad. The workshop featured participation from representatives of Ministry of Information Technology & Telecom, Ministry of Federal Education & Professional Training, Ministry of Interior, Ministry of Information & Broadcasting, Ministry of Commerce, Ministry of Defense, Universal Services Fund, Ministry of Human Rights and other government and private entities. The workshop aimed to address the digital gender divide in Pakistan by bringing together stakeholders from the government, and civil society to improve gender in ICTs. Key discussions focused on strategies to enhance women's access to mobile technology and digital services, with an emphasis on creating inclusive policies and fostering a supportive ecosystem. In her keynote address, Nilofar Bakhtiar, Former Federal Minister Women Development Department and Ex- Chair of NCSW, emphasized the critical need for digital inclusion of women, highlighting that gender equality in the digital realm is essential for economic and social development. During the event, Mr. Julain Gorman, Head of APAC GSMA highlighted the discussion on leveraging global expertise and collaborative efforts to tailor solutions specifically for enhancing women's inclusion and empowerment in Pakistan. Participants engaged in interactive sessions, exploring best practices for empowering women through mobile technology and ensuring their participation in the digital economy. The workshop also highlighted successful case studies from other countries that have made significant progress in bridging the mobile gender gap. The workshop concluded with the distribution of certificates to the participants and shields to the GSMA and NCWS officials. (August 6, 2024) www.pta.gov.pk

Qatar

Qatar hosted the 30th meeting of the Cooperation Council for the Arab States of the Gulf (GCC) Committee for Under-Secretaries of Post and Telecommunications. Chaired by Engineer Ahmad Abdulla AlMuslemani, President of Qatar's Communications Regulatory Authority (CRA), the event underscores Qatar's dedication to fostering regional cooperation in these critical sectors. The meeting's agenda was robust, targeting the advancement of telecommunications infrastructure and the improvement of postal services across the Gulf states. Key discussions included following up on decisions from previous meetings, such as adjustments to roaming charges and the restructuring of the Ministerial Committee for the Digital Economy. Additionally, the delegates explored collaborative opportunities in space technology and electronic applications. Engineer AlMuslemani expressed enthusiasm about hosting the meeting, noting the importance of collaboration in postal and telecommunications to keep pace with rapid technological advancements. "We anticipate productive dialogues that will enrich our collective experience and help propel our shared objectives forward," he stated. This gathering is part of Qatar's broader efforts to enhance economic integration among GCC states and develop the telecommunications and postal sectors in alignment with the rapid digital transformations occurring worldwide. The outcomes are expected to significantly contribute to digital transformation and sustainable development in the region. (September 27, 2024) www.meatechwatch.com

The Communications Regulatory Authority (CRA) has ordered local mobile operators to switch to high-speed Time Division Duplex (TDD) technique in the 2.6 GHz frequency band, a move it says will enhance mobile network performance. The regulator further noted that this decision will support the optimal use of the available frequency band, ensures harmonized usage across the Gulf region and will eventually improve telecom consumers experience in Qatar. "This approach adopted by CRA to switch using TDD technique is in line with the recommendations of the International Telecommunication Union (ITU) and the standards of international standardization bodies and organizations to support both 4G and 5G technologies," said the regulator. "The new technique provides more efficiency in terms of using the spectrum, and greater flexibility in terms of spectrum assignment, which contributes to enhancing the ability of mobile service providers to offer faster services with higher quality to meet the increasing demands for telecommunications services in Qatar." Under CRA's decision, mobile operators are required to cease all operations using the current Frequency Division Duplex (FDD) technique and migrate to the new technique by March 31, 2025, and "ensure that their networks are ready for this transition to maintain providing distinctive high-speed data services in Qatar." CRA also noted that each carrier will work to minimize the impact of this transition on the quality of service, with noticeable improvements expected once the transition is complete. "Through these measures, CRA reaffirms its commitment to ensuring consumers have access to advanced, innovative and reliable telecommunications services, supporting the Qatar National Vision 2030 and the Third Qatar National Development Strategy 2024 – 2030, which prioritizes improving residents' quality of life and delivering services that meet global standards," the regulator added. The decision issued by CRA included additional bandwidth to mobile operators in response to the continuous increase in demand for high-speed mobile services due to significant growth in digital technologies such as artificial intelligence (AI), 5G applications, cloud and edge computing and the Internet of Things (IoT). GSMA Intelligence estimates Ooredoo Qatar had almost 81,000 3G connections on its network as of the end of June, while rival Vodafone Qatar had almost 10,800. This compares with total connection numbers across all generations of 2.7 million and 2.1 million, respectively. (September 3, 2024) www.rcrwireless.com

The Communications Regulatory Authority (CRA) in collaboration with the International Telecommunication Union (ITU), announced the commencement of the Digital Innovation Profile (DIP) for the State of Qatar. This initiative aims to accurately assess the digital innovation ecosystem; a move that will help shape key strategies and inform national policies that accelerate Qatar's digital transformation. The DIP project is a comprehensive analysis of Qatar's ecosystem capacity. Crucially, the project will assess the country's maturity in innovation and entrepreneurship. CRA launched this initiative by engaging key stakeholders from the very beginning, ensuring that the DIP is thorough, accurate and is rooted in ground realities. The workshops aim to identify strengths, address gaps, analyze needs, and develop detailed recommendations for advancing Qatar's digital economy. Commenting on the initiative, Eng. Hussain Abdulla Salatt, Public Relations and Communication Manager at CRA, said: "The development of the Digital Innovation Profile is a significant step towards enhancing Qatar's competitiveness in the global Information and Communication Technology (ICT) industry. We are not only prepared to assess where Qatar stands in terms of Digital Innovation, but we are also ready to envision the future and articulate where we should go. The key recommendations from the DIP reviews will give us a comprehensive understanding of the challenges and opportunities within the ecosystem and help us shape a future-focused, ICT-based, innovation environment." He emphasized that "by leveraging the insights gained from this project, we want to help build a sustainable, ICT-enabled economy which is aligned with Qatar National Vision 2030, the Third National Development Strategy 2024-2030, and the Digital Agenda 2030". This collaborative effort between CRA and ITU reiterates Qatar's commitment to fostering the growth of a robust digital economy. It is expected that the findings and recommendations from the DIP will guide future policies. At a national level, the findings will be discerningly deployed to ensure that the State of Qatar remains at the forefront of digital innovation. (August 27, 2024) www.cra.gov.qa

Saudi Arabia

His Excellency the Governor of the Communications, Space and Technology Commission, Dr. Mohammed bin Saud Al-Tamimi, met with the President of the National Telecommunications Agency (ANATEL) of Brazil, Mr. Carlos Manuel Baigorri, as part of his visit to Brazil. The meeting aimed at strengthening international cooperation, discussing ways to support technical development and exchange expertise in Space and ICT sectors between the two countries. A number of topics were discussed during the meeting, including developing innovative solutions to regulate the Telecommunications sector, enhancing digital infrastructure, and studying the sustainability of satellites, in addition to organizing joint workshops and training programs to exchange expertise between the two parties. The meeting is part of CST's efforts to enhance the Kingdom's global role in in Space and ICT sectors, and support innovative solutions that contribute to the development of these industries. (September 17, 2024) www.cst.gov.sa

H.E. Dr. Mohammed bin Saud Al-Tamimi, Governor of the Communications, Space and Technology Commission (CST), participated in the opening of the Space Sustainability Forum. Organized by the International Telecommunication Union (ITU), the forum is taking place in Geneva. The event is designed to address the swift advancements in space technology and to offer a global platform for discussion by bringing together leaders, experts, specialists, and stakeholders from regulatory bodies as well as Space and satellite agencies to explore policies, strategies, and solutions essential for the sustainability of outer Space. H.E. Al-Tamimi highlighted that Saudi Arabia, in collaboration with ITU members and all other relevant stakeholders, is actively contributing to the advancement of the Space economy and the achievement of sustainable development goals (SDGs). Adding that Saudi Arabia harnesses its resources and specialized expertise in communications, space and technology through initiatives designed to promote and support space sustainability H.E. the Governor concluded his remarks by emphasizing Saudi Arabia's ambition to explore new horizons for the future through advanced Space technologies, with the goal of achieving growth and sustainability for humanity, mentioning that the first conference on Space debris, held in collaboration with the ITU and the United Nations Office for Outer Space Affairs, aiming to enhance global awareness of Space debris challenges. It is important to mention that Saudi Arabia has been a member of the ITU since 1949, in addition to its membership in the ITU Council since 1965, representing one of the 48 countries out of the 193 total member states. (September 11, 2024) www.cst.gov.sa

The Communications, Space and Technology Commission (CST) has updated the "IoT Regulatory Framework" document and changed its name to "IoT Regulations", in an effort to promote investment and innovation in IoT, improving services' quality and efficiency, enhancing the user experience, and strengthening the regulatory landscape in Saudi Arabia. The updated "IoT Regulations" will be applied (60) days following the document's publication on CST website. The update includes facilitating service providers and investors journey in IoT, alignment with the national regulations and adapting to the latest communication technologies used in IoT. This will support a range of services and advanced applications, including smart cities, logistics, transportation, energy, mining, tourism, and beyond.
(August 23, 2024) www.cst.gov.sa

The Communications, Space and Technology Commission (CST) has announced the first participation of the Saudi Astronomy Team at the International Olympiad on Astronomy and Astrophysics (IOAA2024) in Brazil, in collaboration with the King Abdulaziz and His Companions Foundation for Giftedness and Creativity (Mawhiba). This achievement comes after CST's and Mawhiba's joint programs that included training and preparing students. The Saudi Astronomy Team is presented by Jude Basem Al-Luhyani from the Makkah Education Department, Fajr Hassan Al-Obaidan from the Al-Ahsa Education Department, and Hussein Hassan Al-Mubarak from the Eastern Province Education Department. Each member has undergone around 590 hours of training. Their participation reflects CST's commitment to nurturing national talent for global competition in the Space sector, empowering local individuals and motivating students to pursue careers in Space and related fields, which is all aimed at strengthening Saudi Arabia's capabilities in the Space industry. CST has fulfilled these goals by implementing a series of training programs over a 12-month period. This initiative was designed in collaboration with Mawhiba to prepare students for the IOAA2024, which assesses participants' skills in astronomical observation, celestial mechanics, astrophysics, and cosmology. CST's role as a regulator in the Space sector is committed to offering a variety of training and educational programs. These initiatives aim to prepare national cadres to keep up with rapid developments in Space and to enhance opportunities in the field.
(August 20, 2024) www.cst.gov.sa

The Communications, Space and Technology Commission (CST) launch the “Competition on Non-Terrestrial Networks for 6G” International Research Competition, which aims to provide innovative solutions for 6G non-terrestrial networks (NTN), promoting research and innovation in NTN and telecommunications. The submission of scientific and research papers will be available until 15 September 2024, according to the conditions listed in the competition's website. The submitted papers will be evaluated and the top 10 ideas will be invited to participate in the “Connecting the World from the Skies" forum, which will be held in Riyadh on 25-26 November 2024. At the forum, these ideas will go through the final assessment to declare the three winners. (August 12, 2024) www.cst.gov.sa

Dr. Mohammed AlTamimi, the Governor of the Communications, Space and Technology Commission (CST), met with entrepreneurs in the Space sector, with the aim to enhance entrepreneurship and innovation, develop Space infrastructure, and attract both local and international investments. The meeting discussed the latest developments and advancements in the Space sector, reviewed local efforts from both the public and private entities. The meeting also addressed current challenges and their solutions, as well as available investments opportunities that contribute to the future of Space sector and enhance Saudi Arabia's global leadership. This initiative is part of CST's efforts to support entrepreneurs in the Space sector. Noting that CST launched the Space Entrepreneurship Alliance (SEA), which aims at consolidating the efforts to support entrepreneurship across Saudi Arabia, in order to promote the growth of startups in the sector, accelerate the release of their products, as well as allow entrepreneurs to engage with investor and Space sector experts. (July 25, 2024) www.cst.gov.sa

The Communications, Space and Technology Commission (CST) represents Saudi Arabia in the Global Symposium for Regulators "GSR24" held in Kampala, Uganda. The conference aims to enhance discussion in the ICT sector among regulators, legislators, policy developers, officials, and stakeholders. It serves as a platform for exchanging knowledge and experiences on significant regulatory issues and developments in the telecom sector, as well as studying best regulatory practices implemented internationally. Eng. Omar Alrejraje, Regulation and Competition Sector Deputy Governor at CST, headed the Kingdom's delegation in meetings and panel discussions with heads of regulators from around the world; with the aim to showcase Saudi Arabia's leading role in global digital regulations, reflecting its political and economic value. The Global Symposium for Regulators (GSR) is an annual event organized by ITU's Telecommunication Development Bureau. It gathers officials of national regulatory authorities from both developed and developing countries, along with numerous specialized experts from over 70 nations, representatives of national and international companies. The event aims to enhance the exchange of knowledge, share international experiences and facilitate collaboration among relevant sectors.
(July 1, 2024) www.cst.gov.sa

South Sudan

The National Communications Authority (NCA) has released approved tariffs for SpaceX's satellite Internet service, Starlink. In a post on X, the NCA said it had collaborated with Starlink to release affordable connectivity in South Sudan as Elon Musk's high-speed, low-latency Internet service is preparing to launch in the country. "Through negotiations, favorable terms have been agreed upon encompassing accessible capacity and terminal units for utilizing Starlink services within the nation," the NCA said. This serves to inform the public about the approved tariffs & the forthcoming selection of local distributor(s) by Starlink. It should be noted that the tariffs exclude applicable taxes and relevant statutory fees. "As per the stipulation of the provisional license granted by NCA to Starlink, customers in South Sudan will be required to register and make payments in South Sudanese pounds equivalent to the United States dollar prices agreed with Starlink," it added. (July 9, 2024) www.connectingafrica.com

Tunisia

The Ministry of Communication Technologies reportedly launched a call for tenders for 5G operating licenses, with the aim of launching commercial 5G services in some form as early as November this year. The ministry said that each successful applicant will get 5 MHz of duplexed spectrum in the 700 MHz, and 100 MHz of TDD spectrum in the 3.5 GHz band for 5G usage. The report added that three 20 MHz blocks will be available at the request of operators, and other 5G frequency bands will be released in later phases. Each 5G license will be good for 15 years. The ministry has not yet revealed how much telcos will have to fork out for the new license. Tunisia's three mobile operators – Tunisie Telecom, Orange Tunisie and Ooredoo Tunisia – as well as other interested parties, including MVNOs and ISPs, will be able to submit their tenders from now until September, when the license winners will be announced. After that, commercial service launches can start in November, the report said, although the scale of such launches is likely to be limited. Tunisian telcos have been making moves to be ready when 5G licenses become available. Last year, Ooredoo contracted Nokia to upgrade its network RANs in Tunisia to be 5G-ready. The Communication Technologies Ministry first revealed its 5G roadmap in March. The roadmap was officially greenlighted in June by the government, which sees 5G as a key component in its overall digital transformation strategy. According to the National Telecommunications Authority (INTT), as of the end of February 2024, there were 16.2 million mobile subscriptions in Tunisia, which works out to a 136.5% penetration rate. There are also 11.5 million mobile internet subscribers (or 97.2% penetration). About 90.8% of Tunisians use mobile phones, 65% own smartphones, 72% use fixed internet, and 88% are active on social media, all of which has contributed to a surge in data demand that INTT said underlines the necessity of rolling out 5G.
(July 3, 2024) www.developingtelecoms.com

Turkey

Deputy Minister of Transport and Infrastructure Dr. Ömer Fatih Sayan attended the 16th Huawei User Group Meeting and made important statements. The meeting held in Istanbul brought together 500 telecommunications industry professionals from more than 40 countries and 70 carriers. Deputy Minister Sayan, in his speech, drew attention to the fact that our world is changing rapidly and that connectivity is of vital importance to everyone. Stating that information and communication technologies are present in every aspect of our lives today, Sayan emphasized that approximately 5 billion people worldwide use internet technologies. Deputy Minister Sayan stated that the Ministry has made a great contribution to Turkey's development and progress by investing 275 billion dollars in the transport and communication infrastructure in the last 21 years, and that the total number of fixed and mobile broadband internet subscribers has reached 93.3 million. He added that the fiber length has reached 562 thousand kilometers and the number of fiber broadband subscribers has increased by an average of 20% annually, reaching 6.7 million. Deputy Minister Sayan stated that Turkey was the first country to implement 4.5G wireless networks in 2016 and is currently preparing for 5.5G, planning to directly establish 5.5G networks in 2026. He said that with this new technology, users will experience 5 to 10 times better speed with faster data transmission and lower latency, and that the digital transformation of thousands of sectors in Turkey will be made possible. Deputy Minister Sayan stated that Huawei has supported the advancement of national science and technology, the prosperity of the industrial ecosystem, the cultivation of new talents, and the evolution of advanced networks such as 4.5G and 5.5G by working together with Turkey over the last decade, and expressed their appreciation for Huawei's "In Turkey, for Turkey" strategy. (July 4, 2024) www.btk.gov.tr

United Arab Emirates

The Telecommunications & Digital Government Regulatory Authority (TDRA) announced that the UAE has achieved outstanding results in a number of indicators related to government and digital services as per the United Nations E-Government Survey 2024, which focuses on the role of governments in accelerating digital transformation and artificial intelligence for sustainable development, and providing services that enhance the quality of life of community members. The report announced by the United Nations Department of Economic and Social Affairs (UN-DESA) indicated that the UAE ranks first globally in the Telecommunication Infrastructure Index (TII), with a full score of 100 per cent. The report also indicates that the UAE advanced 34 points in the Human Capital Index (HCI), moving from 44th to 10th place, and getting placed first in Asia and the Arab world in this index. This result reflects the considerable efforts made towards national competencies in the UAE, and provide them with the necessary skills to navigate the era of accelerated digital transformation and technological shifts. The report pointed out that the UAE belongs to the top-rated countries in the E-Government Development Index (EGDI), which constitutes the general framework for a set of criteria. The UAE achieved a score of 95 per cent, and advanced two places from what it had achieved in the previous assessment in 2022; thus, maintaining its position on the list of most developed countries in the world. Among the results of the report are also the UAE's full score in the e-government literacy (EGL) index, and the world's first full score in the content provisioning and institutional framework standards, which are two sub-indices of the Online Service Index (OSI). Talal Belhoul Al Falasi, Chairman of TDRA, praised the results achieved by the UAE in the UN E-Government Survey 2024, which reflects the efforts of various federal and local government entities, saying, "With these results, the UAE has established a new milestone in its journey towards a brighter future, led by President His Highness Sheikh Mohamed bin Zayed Al Nahyan and His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai, along with the government. Today, we reap the rewards of a track record of efforts and achievements by the minds of the people of this generous country, in order to solidify the foundations of a digital knowledge society and economy, leveraging cutting-edge technologies, particularly AI and other transformative technologies". For his part, Eng. Majed Sultan Al Mesmar, Director-General of TDRA, stressed that the UAE's keenness to develop the ICT sector stems from the vision of the wise leadership that this sector is the backbone of development and driver for all other sectors. He said, "When it comes to global competitiveness and sustainable development strategies, the Telecommunication infrastructure Index stands out as one of the most important pillars as it reflects the level of progress of countries in employing future technologies to create the desired future." "We are proud that the results of this index placed the UAE at the forefront of the global scene, and we are reaping the fruits of a long journey of pioneer ship, effective strategies, insightful vision and joint efforts. Today, the UAE has become an inspiring story in the systematic digital transformation, which supports the digital economy and smart cities based on the principles of inclusive government, customer centricity, business continuity and proactivity. If these results have put us on the top globally, we see this as an important incentive for us to continue to implement

the strategic motto of Vision 2031, which is to move from one milestone to another." On her part, Hanan Mansoor Ahli, Director of the Federal Competitiveness and Statistics Centre (FCSC), said, "The results of the UN E-Government Survey 2024, are considered as a reflection of the effectiveness of digital government enablers, and the efficient telecommunications infrastructure that supports Intergovernmental Integration projects and initiatives.

(September 27, 2024) www.gulftoday.ae

The 14th National Dialogue on Climate Ambition was organized by the Ministry of Climate Change and Environment (MOCCAE) and hosted by Dubai International Financial Centre (DIFC) at its headquarters in Dubai. The event is part of a series of sector-specific assemblies aimed at establishing a national sustainability outlook and informing the country's pursuit of climate neutrality. The fourteenth assembly, which was organized in partnership with IMPACTGULF, discussed ways in which innovation can accelerate the transition to a low-carbon economy. It also looked at the importance of green initiatives in linking digital transformation and sustainability. During the event, seven additional entities from both private and public sectors signed MOCCAE's Climate Responsible Companies Pledge, bringing the total number of signatories to 138. Dubai Road and Transport Authority, Dubai Holding, Emirates Development Bank, Al-Futtaim Group, Stratecis, Antelope Toplink LLC and IPT-energy all committed to step up their efforts to combat climate change. They will do this by measuring and reporting their greenhouse gas emissions in a transparent manner, developing ambitious science-based plans to reduce their carbon footprint, and by sharing these plans with the UAE government to help contribute to achieving the national net-zero target by 2050. H.E. Dr. Alanoud Alhaj, Acting Assistant Undersecretary of Green Development and Climate Change sector at the MOCCAE, said: 'The National Dialogue on Climate Ambition underscores the Ministry's commitment to fostering ongoing engagement with major corporates and the private sector – who are a key partner in the UAE's journey towards achieving Net-Zero by 2050.' H.E. added: 'The private sector is instrumental in fostering innovation to accelerate the transition to a low carbon economy and facilitate the transformation of various industrial and service sectors into sustainable systems. Through collaboration and the sharing of best practices in this field, we can more effectively promote sustainable economic growth in the UAE.' Her Excellency concluded: 'We are pleased that seven additional entities have signed our Climate Responsible Companies Pledge. In doing so, they are committing to aligning their efforts with our national decarbonization drive. These companies see the opportunity that exists in diversifying a business in pursuit of sustainability.' Eng. Aisha Al Abdooli, Director of the Green Development Department at UAE Ministry of Climate Change and Environment, delivered the keynote speech at event, championed the need to harness digital innovation to power impactful sustainability solutions. In her speech, Eng. Al Abdooli stressed the importance of domestic and international collaboration to drive digital innovation and foster shared knowledge. The dialogue's welcome address was given by Ms Alya Al Zarouni, Chief Operating Officer at DIFC Authority, in addition to Mr Christoph Klarmann, Deputy Ambassador at the German Embassy, UAE. The 14th National Dialogue on Climate Ambition featured presentations from Yassin Nasri of IMPACTGULF, and Joëlle Jammal, Executive Director of United Nations Global Compact UAE. It closed with a working session focused on 'The Pros & Cons of AI for the Advancement of Sustainability'. The session was moderated by Ahmed Ameen Ashour, Chief Sustainability Commercial Officer for Microsoft Middle East and Africa, and Shayma Kurz, CEO of Digital Advice Consulting.

(September 5, 2024) www.zawya.com

UAE Adopts Regulations on Telemarketing Activities and the Telemarketing has long been a favored method for businesses to reach potential clients. However, with the significant evolution of data privacy and consumer protection laws, telemarketing is now intertwined with numerous legal challenges and concerns. In line with these developments, the United Arab Emirates has adopted Cabinet Decision No. 56/2024 of June 10, 2024 (the Decision) to enhance the regulatory framework governing telemarketing activities. The Decision was officially published on June 28, 2024 and will come into force on August 27, 2024. It would be prudent for businesses operating in the UAE market to review their marketing practices before such time to ensure compliance with the new requirements. The Decision sets out principles and an additional framework for the regulation of telemarketing activities, i.e., phone calls to consumers for the purposes of marketing, advertising, or promoting products or services, as well as marketing SMS and other messages sent through social media applications.

(July 26, 2024) www.lexology.com

REGULATORY ACTIVITIES BEYOND THE SAMENA REGION

Albania

Telecoms regulator AKEP has officially opened the competition for the first frequencies to be used for 5G. This will involve five blocks in the 3400-3800MHz frequency band – two of 80MHz and three of 40MHz. For the 80MHz blocks, the minimum bid from participants in the auction must be EUR3.634 million (about US$4 million). For the 40MHz blocks, the minimum bid is EUR1.812 (about US$2million). A single bidder will not be able to win more than three usage rights or 160MHz of spectrum in total. According to the local news service, CAN, AKEP could earn somewhere in the region of EUR12.7 million (US$14.05 million) from the auction. The same source says that bids will win on price only, with payment in two instalments: 50% after the win and the remaining sum six months after authorization is granted. This minimum price required is apparently higher than neighboring countries like Kosovo and North Macedonia, though the population of Albania, at about 2.4 million, is higher too. The deadline for submitting offers is 17 October of this year. The conditions of the tender require coverage of 55% of the population with 5G services by 2027 and 85% of the population by 2030. A number of ports, airports and industrial zones and hospitals are to be covered by the end of 2025. All cities must be covered by 2028. As CAN notes, there is nothing stopping new entrants from bidding. However, the modest size of the Albanian market and the large investments needed to set up networks make the arrival of new players unlikely.

(September 2, 2024) www.developingtelecoms.com

Australia

The Australian Competition and Consumer Commission (ACCC) will not oppose the proposed regional mobile network and spectrum sharing agreements between local carriers Optus Mobile Ltd and TPG Telecom. Optus and TPG had entered into three agreements that relate to the provision of mobile services in certain regional coverage areas in Australia. In these areas, Optus will use TPG spectrum in the 700 MHz, 1800 MHz, 3.6 GHz and 3.7 GHz bands, while Optus will provide TPG with network services. Under the agreements, TPG will decommission most of its sites in the coverage area, while some will be transferred to Optus. The ACCC said in a release that it had considered the effects of the agreements on competition for retail and wholesale mobile services in Australia, adding that it found that the agreements are unlikely to substantially lessen competition. “The ACCC carefully considered the arrangement proposed by Optus and TPG, as it represents a structural change to the mobile services landscape,” ACCC Commissioner Philip Williams said “The agreements will allow TPG to provide better coverage in regional areas, which will likely enhance its ability to compete during the term of the agreements, improving choice for regional consumers,” he added. Williams also noted that the agreements are likely to support Optus’ regional 5G rollout, particularly through access to TPG's spectrum.

(September 6, 2024) www.rcrwireless.com

The Australian Government has announced a strategic partnership with Amazon Web Services (AWS) to bolster Australia's cybersecurity capabilities with an investment of at least $2 billion over the next decade The partnership will involves establishing a Top Secret (TS) AWS cloud in Australia, which the country will move its secret intelligence data to, in collaboration with the Australian Signals Directorate (an Australian government intelligence agency). The platform aims to enhance the resilience of ICT services for the government and could create up to 2,000 local jobs. The TS Cloud will support secure storage and analysis of Australia's most sensitive data, leveraging advanced technologies like AI and machine learning. This initiative is expected to strengthen the defence department's communication networks and facilitate closer collaboration with allied nations such as the UK and the US, who already use AWS cloud computing in their governments. The Defence minister Richard Marles said in a press release that the deal would increase “interoperability” with the US and “ensure we have a far more resilient, capable, lethal, modern and potent defence force in the future”. “My government is bolstering our defence and national intelligence community to ensure they can deliver world leading protection for our nation,” said Australian Prime Minister Anthony Albanese. “We face a range of complex and serious security challenges and I am incredibly proud of the work our national security agencies undertake on a daily basis to keep Australians safe. We must never underestimate their value and importance. That is what this investment today is about,” he continued. AWS plans to engage local businesses in designing and building the TS Cloud, offering opportunities for innovation in cybersecurity, data analytics, and cloud computing.

(July 8, 2024) www.totaltele.com

Canada

The Canadian Radio-television and Telecommunications Commission says it's putting $271.9 million toward a 1,300-kilometre-long undersea fiber internet link for Iqaluit, Kinngait, Coral Harbour and Kimmirut. The funding would come from the commission's broadband fund at the request of the Nunavut government, and is conditional on getting the support of Nunavut Tunngavik Incorporated. "Given the challenges and the significant costs associated with bringing fiber to Nunavut, as well as the potential for the project to enable future fiber deployments in the region, the commission views the funding requested for this project as necessary," the commission wrote in a decision Friday. Last year, the territory cancelled its plans to run fibre to Iqaluit and Kimmirut because it ended up costing too much. Nunavut's internet currently comes via satellite. The decision notes that the territory's funding request received support from all four communities, along with local hunters and trappers organizations, Inuit associations and businesses. The commission expects the project to be constructed within three years. The commission's decision to fund the project was not unanimous. In a dissenting opinion, commissioner Claire Anderson wrote that Nunavut Tunngavik Incorporated should have been consulted before the commission gave conditional approval. "Any time we look at whether our decisions advance reconciliation, we must consider the concerns and interests of Indigenous representatives, which was not fully contemplated by the majority in this decision," she wrote. She pointed out that Nunavut Tunngavik Incorporated had already put its support behind a different Inuit-led application for funding — one that is no longer being considered, now that the commission has selected the territory's application instead.

(July 8, 2024) www.cbc.ca

Chad

The telecoms regulator Arcep, has renewed the license of telco Airtel Chad with some new specifications and stronger QoS requirements. In a signing ceremony streamed on Facebook earlier this week, Minister of Post and the Digital Economy Boukar Michel said the new specifications for the license include deploying optical fiber in "urban and peri-urban areas". According to a report from Ecofin Agency, that will enable Airtel Chad to chase new revenue streams as it deploys fiber to strengthen its home and enterprise broadband data offerings. The revised license also comes with conditions Airtel Chad must fulfill, with a particular emphasis on improving quality of service. Airtel Chad knows full well the consequences of falling short of QoS conditions. In August 2023, we reported that Arcep fined the telco XAF5 billion (US$8.3 million) for failing to meet QoS requirements. The regulator said it saw a "noticeable deterioration in quality" in Airtel services following an audit required under an MoU signed by Arcep, Airtel and rival telco Moov Africa Chad in 2021 to address a barrage of complaints from subscribers over service quality. Under that MoU, Airtel and Moov agreed to invest XAF29 billion and XAF27 billion respectively in network development over three years. As part of the agreement, a committee was set up to monitor investment impact on quality of service. According to Datareportal, there were just over 13 million cellular mobile connections in Chad at the start of this year, which represents 70.4% market penetration and 9.6% growth from the start of 2023. However, internet usage is considerably lower in the country, with just 4.18 million internet users in January 2024, or 22.5% of the population.

(July 18, 2024) www.developingtelecoms.com

Congo

The Democratic Republic of the Congo recorded more mobile subscribers in 2023 with over half of the country's large population now connected, reported Ecofin Agency. The Congolese Post and Telecommunications Regulatory Authority recorded 6.4 million more mobile subscribers in the whole of last year taking total number of connected from 49.8 million to 56.2 million, a rise of 12.8%. This equated to around 59.1% of the DRC's massive 95.2 million population, however the actual figure could be lower due to multiple SIM card usage, the regulator acknowledged. The government pushed initiatives to encourage the private sector to connect more citizens to mobile. An example being the partnership between the Congolese Fiber Optic Company and the Agency for Coordination and Monitoring of Collaboration Agreements, to install fiber optic cables along roads. By onboarding more citizens to mobile, the government aims to have more will tap into information from the internet and financial services, which has proven to be assets for the economies of African countries. But mobile money penetration only stood at 23.3%, and mobile internet penetration was 31.5%.

(July 15, 2024) www.developingtelecoms.com

Germany

The German government wants to speed up the expansion of fiber optics and mobile communications. After lengthy negotiations within the government, the cabinet approved a draft law to accelerate the expansion of telecommunications networks. "We are sending an important signal to the economy that we are resolutely pushing ahead with digitalization," said Volker Wissing (FDP), Federal Minister for Digital Affairs and Transport. Environmental protection and modernization of the country would be brought into harmony. The expansion of telecommunications networks is to be in the "overriding public interest" in future, for a limited period until 2030. This is intended to give companies legal certainty. The government's goal is to provide Germany with nationwide fiber optic coverage and state-of-the-art mobile communications standards by 2030. According to the ministry, there is currently 92% coverage for high-speed 5G mobile communications and progress is being made with the expansion of fiber optics. There is already overwhelming public interest in the expansion of renewable energies, for example. This should enable local authorities to prioritize the expansion when weighing up nature conservation, for example. There was a dispute within the government about the word "overriding" when it came to grid expansion - there are to be exceptions to this in the area of nature conservation law. According to the Digital Ministry, the overriding public interest should apply where the provider who wants to build does not yet have mobile coverage. That is just under 17 percent of Germany's surface area.

(July 24, 2024) www.marketscreener.com

Ghana

Ghana's National Communications Authority (NCA) has addressed Internet and mobile data pricing as well as MTN Ghana being declared a Significant Market Power (SMP). The Authority's response came after what it called "a public outcry" regarding high Internet data pricing in the country and MTN Ghana's status as an SMP, with the regulator saying that it understood the public's concerns. "As the regulatory authority for the communications sector, the NCA is entrusted with the responsibility of upholding fair competition and safeguarding consumer interests within the telecommunications industry," the NCA said in a statement. Therefore, the NCA said the classification of MTN as an SMP aligns with its mission and fulfils its mandate. "It is important to note that the SMP classification is not intended to punish or stifle MTN's operations but rather to ensure a level playing field in the market and protect consumer choice," the NCA explained. According to local media, Ghanaians have called for the dissolution of the NCA board due to high data costs and unreliable data supply, which some attribute to MTN's declaration as an SMP back in 2020. In attempts to level the playing field, in July 2023, the NCA introduced technology neutrality to tackle non-SMP concerns in the telco industry. "By implementing measures such as asymmetric interconnection rates, tariff parity, and technology neutrality, the NCA aims to promote competition, encourage innovation, and protect consumers' interests," the Authority explained. According to the NCA those measures enable other operators to compete effectively, offer sustainable pricing, and invest in improving service quality.

(July 23, 2024) www.connectingafrica.com

Hong Kong

The Office of the Communications Authority (OFCA) has recently published the information for the auctions of spectrum in the 850/900 MHz, 2.3 GHz and 6/7 GHz bands. The government agency also issued a formal invitation for interested parties to submit applications. “The Communications Authority (CA) and the Secretary for Commerce and Economic Development (SCED) issued joint statements in May last year and March this year, announcing the decisions to assign a total of 510 megahertz of spectrum in the aforementioned bands through auction within this year for the provision of public mobile services including 5G services. The assignment will further promote the development of 5G services in terms of network capacity, service speed and coverage," a spokesperson for OFCA said. The CA will conduct the auction of 110 megahertz of re-assigned spectrum in the 850/900 MHz and 2.3 GHz bands on November 11, followed by the auction of 400 megahertz of new airwaves in the 6/7 GHz band on November 25. OFCA also noted that the spectrum will be assigned to the successful bidders under unified carrier licenses with a validity period of 15 years. Parties interested in participating in the auctions may submit their applications to OFCA on September 19-20. The SCED has set the auction reserve prices of HKD4 million ($512,000) per megahertz for the 850/900 MHz and the 2.3 GHz bands, and HKD2 million per megahertz for the 6/7 GHz band. The actual amount of spectrum utilization fees payable will be determined through the respective auctions, OFCA added.

(July 23, 2024) www.rcrwireless.com

India

Policy-makers and industry leaders will consider priorities for international standards to support industry growth, innovation, and trust in new technologies at ITU's World Telecommunication Standardization Assembly (WTSA), taking place from 15 to 24 October at New Delhi's Pragati Maidan conference and exhibition Centre. Standards from the International Telecommunication Union (ITU) support cost-effective, interoperable advancements in technology at a global scale. By capturing and creating a basis for continuous innovation, standards provide the foundation for new industries to grow and established industries to evolve. Organized every four years, WTSA is the governing conference for the standardization work of ITU, the United Nations Agency for Digital Technologies. "Standards are taking Centre stage in global governance discussions," said Doreen Bogdan-Martin, ITU Secretary-General. "When countries gather in New Delhi for WTSA-24, they will have an opportunity to foster digital inclusion and trust — values that are more important than ever to ensure that innovation in fields like artificial intelligence, the metaverse, and quantum information technologies helps us create the future we want." ITU's standardization work is driven by the contributions and consensus decisions of ITU's membership, including 193 Member States and over 1000 member companies, universities, and international and regional organizations. WTSA directs the agency's activities on standards and reviews the strategy, structure, and working methods of ITU's standardization arm (ITU-T). The conference also approves the mandates and appoints the leadership teams of ITU-T expert groups for international standardization. "Standards agreed by consensus create the confidence to continue innovating and investing," said Seizo Onoe, Director of ITU's Telecommunication Standardization Bureau. "With every breakthrough in science and technology comes wider transformation, and we must keep coming together to develop the standards required for people and economies to thrive while pushing new frontiers. That's what our standardization processes are built for." WTSA-24 will be the first meeting of ITU's governing conference on standards to take place in Asia. (September 16, 2024) www.itu.int

The government collected 113.40 billion rupees ($1.35 billion) from the auction, which was far less than the total spectrum on sale, simply because demand for the spectrum is too low. The sale fell short of the 962.38 billion rupees worth of spectrum on offer. The auction covered spectrum in the 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz, and 26 GHz frequency bands, but it was the 900 MHz, 1,800 MHz, 2100 MHz and 2500 MHz bands that were snapped up by the operators. “The unsold spectrum will again be put to auction next time," confirmed the Indian Ministry of Communications. The country's second largest telco Bharti Airtel topped the auction spending 68.57 billion rupees ($820.80 million), followed by 35.1 billion rupees from Vodafone Idea ($420.5 million) and then market leader Reliance Jio with 9.74 billion rupees ($116.7 million). The last spectrum auction in India took place in 2022. This auction was much larger, with 51.2 GHz of radio frequencies sold for a record 1.5 trillion rupees, mainly because much of this spectrum was on sale for the first time. In this auction, Bharti Airtel, and Vodafone Idea all took home spectrum licenses. Since then, both Jio and Airtel have been hard at work rolling out their 5G networks, while Vodafone Idea delayed the process due to financial strain. But despite swift rollouts from the country's two largest operators, uptake has been slow to follow, with both operators reporting relatively little in the way of 5G revenues in their latest financials, and are therefore reluctant to spend heavily on spectrum at the moment. (July 1, 2024) www.totaltele.com

Ireland

The Republic of Ireland's competition authority opened an in-depth investigation into the implications of Cellnex's proposed sale of its local business to peer Phoenix Tower International (PTI). Cellnex announced the €971 million deal in March, with the Competition and Consumer Protection Commission opening a first stage probe into the proposal shortly afterwards. In a brief statement, the regulator said its detailed investigation would “establish whether the proposed transaction will result in a substantial lessening of competition". Cellnex Ireland's portfolio comprises sites acquired when it bought local player Cignal in 2019, alongside assets purchased as part of a series of deals with 3 Ireland parent CK Hutchison. The buys came at a time of significant acquisition activity at Cellnex, though following a change in strategy announced in November 2022, the company has been more focused on cutting debt and disposals in Europe. On announcing the proposed sale of its Ireland business, Cellnex CEO Marco Patuano said it was in line with a “goal of consolidating, simplifying our corporate structure and focusing our efforts in the existing growth opportunities in the main markets in which we operate". Figures released by the Irish authority noted Cellnex operates 1,720 macro sites containing passive infrastructure and 173 real estate-only sites in the country. PTI also already operates in the country, entering in 2020 when it acquired operator Eir's passive infrastructure business Emerald Tower. (July 26, 2024) www.mobileworldlive.com

Malaysia

Malaysia's Communications Ministry has instructed the Malaysian Communications and Multimedia Commission (MCMC) to stop forcing local ISPs to redirect domain name service (DNS) traffic away from third-party DNS servers. Reports emerged last month claiming that Malaysian ISPs – including Maxis, Time dotcom, U Mobile, CelcomDigi and Telekom Malaysia's Unifi – had implemented transparent DNS proxy, which redirects DNS queries to alternative DNS servers like Google Public DNS and Cloudflare back to local DNS servers. This method effectively prevents Internet users from using alternative DNS servers to access websites blocked by the MCMC. At the time, the MCMC responded with a statement that it was "working closely with local service providers" in relation to DNS management as a way to block access to websites that violate Malaysian law, but didn't directly confirm it was ordering them to redirect DNS queries. The MCMC also claimed that 95.7% of blocked websites were involved in illegal activities such as online gambling, pornography, copyright infringement, online scams and prostitution. However, critics have accused the MCMC of also using DNS redirection to censor websites unrelated to such activities, such as election results site Undi.info, investigative journalism website Sarawak Report and blogger site Medium. The MCMC issued another statement confirming that it requires Malaysian ISPs to redirect DNS traffic, stating that the move is necessary to "protect users by blocking access to websites known for distributing malware, phishing, and other malicious activities, as well as filter inappropriate content such as adult material and violent websites." The MCMC also denied accusations that DNS redirection was "draconian", and said accusations that it was blocking legitimate websites were "inaccurate". The statement added that "any websites that believe they have been unfairly targeted or affected may file an appeal through the established channels," meaning the MCMC's Appeals Tribunal.

(September 9, 2024) www.developingtelecoms.com

Mexico

New Mexico's Office of Broadband Access and Expansion (OBAE) has awarded more than $40 million grants from the Connect New Mexico Fund to ISPs, telephone cooperatives, pueblos, and a tribal company for broadband projects. Some of the seven entities receiving grants will be working on multiple projects. The $70 million Connect New Mexico Fund is a state-led broadband grant program that was established to expand high-speed internet access and deploy infrastructure to unserved and underserved people (i.e., those without access to a broadband connection with speeds of at least 100 download/20 Mbps upload). Comcast, which is working on four projects, received the largest grant — a little more than $2.5 million — while Resound Networks, which is working on three projects, received $8.1 million.

Other receiving grants were:

- Valley Telephone Cooperative, $5,682,261
- Penasco Valley Telephone Cooperative, $4,858,602 (2 projects)
- Picuris Pueblo, $4,072,430
- San Ildefonso Services, LLC, $3,474,312
- Isleta Pueblo, $1,554,891.

The funds will go toward will be used for broadband deployment in 16 counties, including the addition of nearly 400 miles of fiber across New Mexico. Construction on these projects will start as awardees complete preliminary work including permitting, right of way access, labor contracts, and supply purchases. More Connect New Mexico Funds are expected to be awarded soon, though no timetable was announced. "These state grants signify tremendous progress towards building reliable broadband infrastructure that helps connect communities in rural parts of New Mexico," said Governor Lujan Grisham. "New Mexicans can rest assured that my administration will remain aggressive about delivering scalable and sustainable high-speed internet to broadband-dry areas of the state."

(September 1, 2024) www.telecompetitor.com

Netherlands

The Netherlands' three national mobile operators KPN, Odido and Vodafone Ziggo all received 100 MHz of spectrum in the 5G pioneer band. In total, the auction raised €174.4 million in revenues, with KPN and Odido both paying €58.4 million, and Vodafone Ziggo shelling out €57.5 million. The licenses will be valid until December 31, 2040. According to the latest 5G Observatory report, the Netherlands was the last country in the European Union to assign the 3.6 GHz band. The band has now been majority assigned (meaning at least 200 MHz made available) in all 27 Member States. The Dutch auction has had a long history. It was originally scheduled to take place in 2022, but was postponed to address concerns from Inmarsat about protections for satellite services being withdrawn in the band. In April 2023, Schiphol Airport and the Port of Rotterdam Authority sued the government over its plans to designate more 3.5 GHz bandwidth for private networks. In October 2023, however, Inmarsat agreed to move its operations from the Netherlands to Greece. In December 2023, a Rotterdam court ruled in favor of the government in all eight appeals against the 3.5 GHz auction plans.

(July 3, 2024) www.5gobservatory.eu

New Zealand

The Commerce Commission set a requirement for mobile operators to develop standardized coverage maps to make it easier for customers to compare offers and allow them to cancel plans without penalty if they face connection problems. Telecommunications Commissioner Tristan Gilbertson explained too many customers sign up to find they are not getting the coverage they expected and want to be able to choose a provider without running the risk of being locked in if they encounter an unexpected coverage problem. Following engagement with mobile operators on how to help consumers make more informed choices, the Commission asked them to agree on a standard set of coverage descriptors within 12 months to make them more comparable and make coverage maps easier to find on their websites. There is also a need to issue regular progress reports. To prevent lock-in, the Commission requires operators to give customers the right exit within six months if they find their actual coverage does not match what was promised in an access map. Gilbertson noted One NZ and 2degrees already offer this in the form of a network guarantee for new customers. "We'd like to see this offered across the board by all providers." The Commission's telecoms consumer satisfaction monitoring report published last week showed almost 20 per cent of residential consumers and 30 per cent of SMEs are not satisfied with their mobile coverage. It previously sought input on draft guidelines requiring operators to develop standardized coverage maps.

(September 6, 2024) www.mobileworldlive.com

Nigeria

The Nigerian Communications Commission (NCC) has implemented new Key Performance Indicators (KPIs) for telecommunications companies to improve the Quality of Service (QoS) across the country. These regulations, part of the newly released QoS Regulations 2024, aim to address growing concerns about service delivery in the telecom sector. The new guidelines set strict parameters for different network segments, including 2G, 3G, and 4G, focusing on factors such as traffic congestion, drop call rates, and call setup success rates. Telecom operators are required to submit monthly QoS reports, and non-compliance could result in fines of N5 million, with an additional N500,000 per day for continued violations. The NCC's move comes amid increasing complaints of load shedding within the industry and operator demands for higher rates. The regulator will monitor service quality through various methods, including user surveys, drive testing, and data collection from its Network Operating Centers (NOCs). Industry leaders have raised concerns about the timing of these regulations, citing challenges such as declining capital expenditure (CAPEX) and foreign direct investment (FDI), rising operational expenses, and multiple taxation. Gbenga Adebayo, Chairman of the Association of Licensed Telecom Operators of Nigeria (ALTON), highlighted the significant decline in industry CAPEX by 30.37% and FDI by 46.9% between 2021 and 2022. He warned that the industry is at a critical juncture, where decisive action is needed to prevent further deterioration and to support the government's ambitious objectives. Tony Emoekpere, President of the Association of Telecommunications Companies of Nigeria (ATCON), echoed these concerns, noting that while telecom companies had been profitable in the past, those gains have been eroded due to stagnant tariffs over the past decade. He emphasized the need for policy support or tariff increases to address the financial difficulties facing the industry. Both Adebayo and Emoekpere cautioned that failure to address these issues could hinder the industry's growth and innovation, ultimately affecting the provision of essential services. They called on the government to enact supportive policies to ensure the sustainability of the telecom sector.

(September 4, 2024) www.meatechwatch.com

The Nigerian Communications Commission (NCC) has directed telecommunications operators to simplify their tariff plans, bundles, and promotional activities. The NCC gave the directive in a statement by its Director of Public Affairs, Dr Reuben Muoka. Muoka said that the move was aimed at providing clear, easy-to-understand, and accurate information about the cost of voice, Short Messaging Service (SMS) and data services to subscribers. "It mandates Mobile Network Operators (MNOs) to publish a comprehensive table showing the features of their tariff plans and bundle offers. "The table should contain all necessary information for subscribers to make informed decisions. "It should provide details on add-ons, their prices, how consumers can opt-in or out, terms and conditions for renewal, and rollover policies," he said. He said that the guideline was the outcome of consultations with industry stakeholders, including MNOs and Consumer Focus Groups, as well as extensive data analysis on consumer preferences and expectations. According to Muoka, the objectives of the simplification guidelines are to reduce the complexity of tariff plans and bundles, and ensure transparency and fairness of promotional elements of tariff plans. He said that it would also protect consumers' interests by providing clear and understandable tariff information to help them make informed decisions and promote fair competition among licensees by standardizing tariff structures. "Service providers are required to display all relevant information about their tariffs, such as the

name of the plan and price. "They should also display information about validity period, price-per-second for on or off-network and international calls, expected data speeds, and fair usage policies. "Operators can maintain existing bonus-led tariff plans till Dec. 31, within which period they are expected to educate and migrate all subscribers to the simplified tariff plans," he said. "Operators must offer stand-alone data bundles at fair prices to avoid tying consumers with products that they do not need," he said. The director said that bonuses on promotions must be stated in actual value; access fees and asymmetric fee structures must be eliminated. He emphasized that while complying with the guidelines, operators must also meet also the Key Performance Indicators (KPIs) standards set out in the Quality of Service (QoS) Regulations.

(August 6, 2024) www.guardian.ng

Peru

The government of Peru approved a plan to assign spectrum directly to operators and allow them to commit to coverage investments instead of paying in cash, with the aim of promoting the deployment of public telecommunications services using 5G Standalone (5G SA) technology. Through a decree issued by the transport and communications ministry (MTC), the government will allow operators to invest in closing telecoms gaps in rural areas or places of preferential social interest as compensation for the spectrum they receive via direct allocations. The new regulation authorizes the MTC to assign radio spectrum directly to interested companies, after calling for expressions of interest, provided that the demand by those operators does not exceed the spectrum available in the corresponding frequency band. Currently, the initial deployment of 5G technology in Peru is being carried out under the 5G Non-Standalone (5G NSA) standard. According to MTC data, only 30 of Peru's 1,891 districts had partial 5G coverage last year. "5G will allow for the massification of connections by devices without losing quality in transmission, enabling applications such as the Internet of Things, telemedicine, tele-education, automation and remote management, among other applications," said the Minister of Transport and Communications Raul Pérez Reyes. "They [the companies] will pay their commitments with obligations [through coverage] of 4G services throughout the Panamericana Norte, Sur and the main national roads," the minister added. Previous reports stated that Peru aims to carry out a spectrum tender to award 5G frequencies in January 2025. The tender is planned to involve 300 megahertz of spectrum in the 3.3-3.4 GHz and 3.6-3.8 GHz bands, as well as 800 megahertz in the 25.9-26.7 GHz band with national coverage. Investment promotion agency ProInversión initially estimated a reference price of $759 million for the 3.5 GHz band and $85.8 million for the 26GHz band. The concessions will be valid for 20 years. Peru's main telecom operators are Claro, owned by America Movil; Movistar, owned by Telefonica, Entel Peru and Bitel. (August 23, 2024) www.rcrwireless.com

Portugal

The Portuguese Competition Authority (AdC) moved to block Vodafone's proposed acquisition of Cabonitel, owner of mobile and fixed operator Nowo, arguing the deal would hurt competition and harm consumers. AdC announced its decision followed an in-depth investigation into the proposal, which found Vodafone will have increased market power if approved, while claiming the deal "reinforced" barriers to market entry and would cause a detrimental effect on consumers. The authority argued Nowo "exerts considerable competitive pressure" on other operators and that its merger with Vodafone would result in significant price increases. Vodafone's products will increase to a lesser extent, and services from competitors will rise "marginally". The proposed acquisition is intended to boost the former's market dominance, AdC further claimed, leading to "losses of consumer surplus and of social welfare in the order of €54 million and €20 million per year, respectively". The merger will also "increase" the degree of coordinated behavior among Vodafone, NOS and MEO, the country's main operators, which would result in barriers to entry for new players. AdC particularly pointed to "the concentration of spectrum in Vodafone", which the company would make inaccessible to new entrants. Vodafone previously presented "commitment packages" including providing a wholesale offer for its fiber network to Digi, which is in the process of launching its services in Portugal. It further proposed the sale of Nowo's recently-bought spectrum usage rights to the new entrant to address AdC's concerns, plans the authority found unsatisfactory. Vodafone revealed its intention to acquire Nowo's owner Cabonitel from Lorca JVCO in October 2022, in a move to increase its customer base and fixed network coverage in the country.

(July 8, 2024) www.mobileworldlive.com

South Africa

The Independent Communications Authority of South Africa (ICASA) has kicked off a consultation process to develop a new framework that will make it easier for LEO satellite operators such as Starlink to acquire a license to offer services. According to a consultation paper issued last week, ICASA is hoping to streamline licensing procedures for satellite service providers so that the regulations can keep up with growing demand for satellite communications, particularly in remote and underserved areas where terrestrial networks are impractical or expensive to deploy. The framework aims to establish clear guidelines and rules for satellite operators, and develop detailed procedures for authorizing various satellite services, including user terminals, IoT terminals, and earth station user terminals. ICASA is shooting for a technology-neutral approach, with licenses based on the service provided rather than the technology used to deliver it, which means service providers would only need to apply for one license rather than several. ICASA said it will also consider reviewing spectrum fees as part of the new framework, given the increasing bandwidth requirements of modern satellite systems using higher frequency bands. The issue is that the current fee structure for gateway stations for geostationary high-throughput satellite (HTS) systems has resulted in high spectrum prices that have deterred some satellite players from entering South Africa. The ICASA framework said the existing formula for calculating satellite spectrum fees is "unsustainable in a globally competitive environment, especially considering the large bandwidth requirements of modern HTS systems". The proposed revamp suggests that LEO satellite operators pay lower spectrum fees than geostationary satellite operators because they use less spectrum and have fewer interference issues to mitigate. The proposed new framework will also outline procedures for international satellite operators to register and operate within South Africa to ensure compliance with national and international regulations. ICASA said the new framework "aligns with the African Telecommunications Union's (ATU) recommendation for member states to adopt transparent and harmonized regulatory frameworks to support the growth of satellite services across the continent." The regulation revamp is potentially good news for Starlink, which is not authorized by ICASA to offer services in South Africa, although that hasn't stopped users from exploiting Starlink's roaming feature to use the service. South African website MyBroadband reports that Starlink sent another notice to South African users on Friday saying it would cut off roaming services this Wednesday, and they will have to return to whatever country they registered for the service in order to keep using the service. Starlink sent a similar warning to South African users in April, but never followed through, the report said.

(August 20, 2024) www.developingtelecoms.com

Thailand

The National Broadcasting and Telecommunications Commission (NBTC) in Thailand has announced plans to auction spectrum in the 2.1 GHz and 2.3 GHz bands early next year, with the aim of enabling Thai mobile operators to upgrade to 5G-Advanced (5G-A) and pave the way for future 6G systems. The NBTC made this announcement as part of its broader spectrum management strategy for 2025-2030, designed to support the evolution towards next-generation networks. According to local newspaper The Nation, NBTC Commissioner Somphop Purivigraipong confirmed that the auction of these spectrum bands is scheduled for the first quarter of 2025. While the NBTC's roadmap addresses several spectrum bands within the 3.3-4 GHz and 6.425-7.125 GHz ranges, Somphop indicated that the focus will initially be on the 2.1 GHz and 2.3 GHz bands due to high demand from domestic telecom operators. Currently, these two bands are held by state-owned National Telecom (NT), but their licenses for these bands will expire in September 2025. NT had requested an extension for these licenses, but private operators True Corporation and Advanced Info Service (AIS) have been pushing for the spectrum to be auctioned to support the development of 5G-A and 6G in Thailand.

(September 10, 2024) www.rcrwireless.com

Uganda

Telecom regulators from across the world have endorsed a set of guidelines aimed at maximizing the benefits of transformative information and communication technologies. This was reached at the Global Symposium for Regulators (GSR), which took place last week at the Commonwealth Convention Centre in Kampala, Uganda. Organized by the International Telecommunication Union (ITU), the UN Agency for Digital Technologies, the symposium brought together more than 600 participants, including ministers, heads of regulatory authorities, industry executives, and academics. Some of the guidelines include adopting a proactive approach that balances innovation promotion with risk minimization, incentivizing ethical conduct and addressing misconduct, streamlining regulations and processes to reduce bureaucratic hurdles and stakeholder engagement to prioritize inclusive stakeholder engagement and public

consultation. ITU Secretary-General Doreen Bogdan-Martin said with one-third of humanity still offline and women and other vulnerable groups on the wrong side of the globe's digital divides, the guidelines highlight innovation, trust, and inclusivity. "With change being the only certainty facing regulators and policymakers, we must work together to pursue regulatory approaches to leverage transformative technologies such as AI [Artificial Intelligence], promote the space economy, encourage innovation, and support climate action and the UN Sustainable Development Goals," she said. Vice President Jessica Alupo, who opened the summit on behalf of President Museveni, said regulators must not only make stringent laws but also ensure that the regulations contribute to the growth of innovations and the economy. Ms. Alupo added: "In line with this theme, I urge you to promote a regulatory environment that prioritizes innovation, safety, privacy, and the rights of digital technology users. You should maximize the benefits of ICTs, while minimizing the negative consequences of regulatory interventions." Ms. Alupo, however, attributed the low uptake of ICT services in developing countries to low per capita incomes, unfriendly regulatory frameworks and limited Internet infrastructure. Uganda's Minister for ICT and National Guidance Chris Baryomunsi said the symposium provided a platform where all thought leaders, regulators and industry players converged to set the policy and regulatory agenda that will guide the global digital industry over the near future.

(July 9, 2024) www.monitor.co.ug

United Kingdom

The UK Competition and Markets Authority (CMA) gave Hewlett Packard Enterprise the green light to acquire Juniper Networks, following European Commission (EC) approval last week, clearing another major hurdle towards completing the $14 billion deal. In a brief announcement, the CMA explained it had given its approval following an investigation into the proposed tie-up launched in June, a process designed to determine if the transaction could harm competition in the UK and other markets. The EC similarly ruled the acquisition will not significantly reduce competition in the networking equipment segment, adding the companies are not close competitors. HPE first announced its deal to purchase Juniper Networks in January. It expects to close the deal in early 2025 at the latest and regulatory clearance from the duo's home market of the US could be the only other major roadblock. When announcing the deal, HPE pushed its AI focus, stating the proposed combined business will ramp up its "edge-to-cloud strategy with an ability to lead in an AI-native environment".

(August 7, 2024) www.mobileworldlive.com

Ofcom is launching a review of the annual license fees they charge mobile network operators for use of three mobile spectrum bands (900 MHz, 1800 MHz and 2100 MHz). Annual license fees (ALFs) are fees we charge mobile network operators to use certain spectrum bands. They typically come into effect after a mobile operator's license won at auction has come to the end of the initial license period. The fees are designed to ensure that the spectrum is used efficiently. We currently charge ALFs for three mobile spectrum bands (900 MHz, 1800 MHz and 2100 MHz). On 28 March 2024, BT wrote to Ofcom to request a review of the ALFs we charge for 1800 MHz spectrum. We have now considered BT's request, and we consider that the evidence suggests that a fee review is justified. As a result of the commonalities in the formula we use to set ALFs, we have decided to begin a review of all of the ALFs we currently charge (that is, ALFs for 900 MHz, 1800 MHz and 2100 MHz spectrum).

(July 23, 2024) www.ofcom.org.uk

United States

The FCC has announced the launch of a new Mobile Speed Test app with the intention to make the process of challenging provider-reported coverage maps easier This story was originally published on Total Telecom's sister site Broadband Communities Last week, the Federal Communications Commission (FCC) announced the launch of a Mobile Speed Test app, replacing the FCC's Speed Test app to help improve the accuracy of the FCC's National Broadband Map. The new app features repeated testing capabilities, which can be accomplished without the need to certify information before each individual test, according to the FCC's recent announcement. According to the FCC's July 23 release, the app will now allow for users to conduct hands-free coverage tests while driving. FCC Chairwoman Jessica Rosenworcel elaborated on the app's capabilities in comments included with the FCC's announcement. "Our new app makes it easier to share real-world experience with connectivity, empowering consumers and making it possible for up-to-date and crowdsourced information to inform our mapping," Rosenworcel said. The app also features an "in-app map overlay displaying the area where a test was taken," the agency's announcement stated. "Consumers deserve to know where they have mobile coverage and at what speeds and the FCC wants to

include their experiences in our effort to create a more precise map of available coverage," Rosenworcel said. The challenge process, a critical component of the Broadband, Equity, Access, and Deployment Program, can help determine if locations are inaccurately marked as covered on the FCC's National Broadband Map. Previously, advocacy groups like The Accurate Broadband Data Alliance, which involves dozens of telecommunication companies, claimed that overreported internet service availability calls into question the accuracy of the National Broadband Map released by the FCC. The Accurate Broadband Data Alliance has been on record stating that "significant errors exist throughout the National Broadband Map." The FCC's updated app, now available on the Google Play Store for Android devices and the Apple App Store for iOS devices, provides the ability for users to log into the National Broadband Map and to review their speed test results and see them on a map, the FCC's release explained. According to the FCC's announcement, "the original FCC Speed Test app is no longer allowing users to run speed tests." Users of the old app have received in-app notifications encouraging users to upgrade to the FCC's Mobile Speed Test app.

(August 5, 2024) www.totaltele.com

The US Federal Communications Commission (FCC) reached a $15 million settlement with Charter Communications to resolve an investigation into the cable operator's non-compliance with 911 and network outage notification rules. During the FCC's investigation, Charter admitted it violated rules regarding notifications to public safety officials and the agency related to three network outages, as well as "hundreds of planned, maintenance-related network outages that occurred last year". The rules require interconnected VoIP providers, such as Charter, to notify 911 call centers as soon as possible if outages last longer than 30 minutes. Service providers are also required to file notifications in the FCC's Network Outage Reporting System when outages reach a certain severity threshold. In one occurrence, Charter failed to notify more than 1,000 emergency call centers of a disruption impacting 911 services and then didn't comply with the FCC's outage reporting rules. "Public safety officials need to be able to inform the public of alternate ways to reach emergency services in the event of an outage," stated FCC chair Jessica Rosenworcel. The FCC noted in addition to the $15 million civil penalty, Charter is now required to "implement a robust compliance plan, including cybersecurity provisions, to ensure network resiliency and future adherence to the Commission's 911 and network reporting rules". The compliance plan includes the agency's first application of cybersecurity measures, such as network segmentation and vulnerability mitigation management, related to 911 communications services and network outage reporting. The cable operator, which offers services through its spectrum brand, "agreed to maintain and evolve its overall cybersecurity risk management program in accordance with the voluntary National Institute of Standards and Technology (NIST) Cyber Security Framework".

(July 30, 2024) www.mobileworldlive.com

Vietnam

By 2025, Vietnam aims to achieve 100% mobile broadband coverage on all national highways, expressways and railways under a plan to enhance the quality of Vietnam's mobile telecommunications network by 2025, which has been approved by the Ministry of Information and Communications (MIC). With a focus on effective deployment of 5G services, the plan wants to elevate user experience for both individuals and businesses, thereby contributing to the growth of the digital economy, digital society, and e-government. According to the Vietnam Telecommunications Authority (VNTA), the draft plan has been sent to relevant agencies within the MIC, Department of Information and Communications of provinces and cities, and major telecommunications companies such as Viettel, Vietnam Posts and Telecommunications Group (VNPT) and MobiFone for feedback. The plan also targets the provision of mobile broadband coverage to all remote villages and hamlets currently without service, ensuring uninterrupted coverage along major transport routes. Under the plan, 2G technology services will be ended on land, except for Truong Sa (Spratly) and Hoang Sa (Paracel) Islands and offshore oil rigs. Meanwhile, by 2025 all provinces and cities are expected to enjoy 5G coverage along with high-tech zones, research and innovation centers, industrial parks, airports, and seaports. The average download speed for 5G Internet services is projected to reach a minimum of 100 Mbps in covered areas. The VNTA has been assigned to coordinate with relevant agencies in the implementation of the plan as well as devise policies to remove obstacles for telecommunications companies in enhancing network quality. (July 10, 2024) www.en.vietnamplus.vn

Zambia

Zambia has completed the construction of a ground receiving station which it says will pave the way for the launch of the country's long-awaited first satellite. According to a Facebook post from Zambia's technology and science minister Felix Chipota Mutati on Saturday, the government has spent over US$14 million to build the ground receiving station, which is located in the Chibombo district in Central Province. Mutati said experts are now testing the station as they prepare to go into phase two of the preparations to launch the satellite. Mutati gave no details on when the satellite launch will take place, or any details about the satellite itself, apart from it being an earth-observation satellite. Zambia has been planning to launch its own earth-observation satellite for several years now to address challenges brought on by climate change in agriculture, land use, health and energy. According to the Lukasata Times, Mutati said in November 2021 that a satellite would be the most crucial component in dealing with climate change. At the time, Mutati set the goal of launching a satellite by 2023. However, Zambia has had to deal with the more pressing issue of its crippling economic crisis brought on by the Covid-19 pandemic. Zambia defaulted on its debt payments in November 2020, and underwent a US$13.4 billion debt restructuring under the G20's 'Common Framework' architecture that was only completed in June 2024. Nevertheless, Mutati said the Zambian government "is committed to launching a satellite which will help in agriculture, forestry, ground water management and other sectors." A growing number of African countries are banking on satellite technology to manage resources to cope with climate change. Senegal is the latest country on the continent to launch a satellite, which went into orbit on Friday to help government agencies improve resource management, improve weather forecasting and aviation safety. According to SpaceHubs Africa, 61 satellites have been launched by 17 countries in Africa as of August 19. South Africa and Egypt have the most with 13 satellites each, with Nigeria a distant third with seven.

(August 21, 2024) www.developingtelecoms.com

Zimbabwe

The Postal and Telecommunications Regulatory Authority of Zimbabwe (Potraz) has approved local firm IMC Communications' application for an internet service provider (ISP) license, enabling a partnership with Elon Musk's Starlink, a subsidiary of SpaceX. This development is expected to revolutionize Zimbabwe's information technology sector and reduce the high cost of digital services. Starlink's high-speed, low-latency satellite internet is particularly beneficial for rural areas with poor or no network connectivity. IMC Communications' managing director, Danny Marandure, expressed gratitude for the approval, highlighting the potential for increased competition, innovation, and lower prices in the Zimbabwean internet market. He emphasized that IMC's services will help achieve President Mnangagwa's Vision 2030 of making reliable connectivity accessible to all. Potraz director general Dr. Gift Machengete confirmed the ISP license approval, and sources revealed that IMC paid US$575,000 for the permit. IMC will also pay an annual license fee of 2% of gross turnover and contribute 1.5% to the Universal Services Fund (USF). The approval follows President Mnangagwa's announcement in May that the government had approved Starlink's licensing through IMC Communications. Starlink, which operates in over 80 countries, aims to enhance Zimbabwe's digital and communications landscape, aligning with the country's objective of a fully digitized economy by 2030. Starlink has also established a presence in several other African countries, including Nigeria, Zambia, and Kenya.

(July 10, 2024) www.bulawayo24.com

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