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# SAMENA TRENDS

FOR SAMENA TELECOMMUNICATIONS COUNCIL'S MEMBERS

BUILDING DIGITAL ECONOMIES

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**MWC Kigali**

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Sustainable and  
Inclusive Global  
Development**

*Featured*

**Hatem Dowidar**  
GCEO  
e&

THIS MONTH

**EVOLVING BEYOND TELECOMMUNICATIONS**

# SAMENA TRENDS

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## Evolving beyond Telecommunications

Since 2018, the journey of 5G development has been a challenging one, especially in terms of investment, proving that those investments would be rightly made, exploring the most impactful areas where 5G could make dramatic socio-economic impact, making regulatory adjustments, and overall transformation at the business level.

Key regional players such as e& have been instrumental in creating confidence in 5G service delivery, and for truly enabling and empowering digital transformation across the regional markets.

As digital transformation within the Industry and within the teleco community carries on forward, our ambitions should indeed be synchronized, especially since we are endeavoring sustainably operate and grow in the new 5G digital era. Fulfilling the 17 SDGs or achieving the 15 aspirational targets recently developed as part of the work of the UN Secretary-General's Roadmap for Digital Cooperation Roundtable Group on Global Connectivity, will depend on commitment from all of us to collaborate, partner, and take decisive steps to ensure benefits of connectivity are brought to all corners of the society, and that an enabling environment is guaranteed for the Private Sector to transform, grow, and thrive.

In the case of e&, we have seen that transformation in the 5G era really is about focusing on business verticals, increasing organisational agility, allowing

for transparent target-setting and strategic collaborations and initiatives, enabling seamless M&A execution, and capturing better synergies within.

Enhancing digital presence, relevance, and growth in the era of 5G necessarily will be centered on entering partnerships in cloud computing and data centers, attending to the region's socio-economic trends and needs for economic diversification, network value-creation, and ICT integration into core industries and economic sectors.

Given the new realities and challenges of the technologically evolving and disruptive business landscape, where expectations of end-users, most of whom are less than 38 years of age, are constantly evolving and require advancements in infrastructure and customer-experience delivery, hyperscaling may be one strategic area to explore for digitally-transformed telecom operators and multi-network groups.

While the region aims to tread the challenging but rewarding path to economic diversification and economic integration, for the private sector, diversification of revenue streams and value-creation for partners and customers, are core areas to focus on.

At the Gitex Global 2023 – the 43rd edition of the leading regional and international tech event that will be hosted by the Dubai World Trade Centre from October 16 to 20, 2023. 🌱



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



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

## “ACCELERATE AFRICA”

### “Accelerate Africa” a Core Theme of MWC Kigali

Africa's digital transformation journey is gaining momentum, empowering communities, governments and businesses. As 4G moves forward and 5G emerges, frontier technologies offer huge potential and fintech continues to connect millions within the formal economy for the first time.

This year's Mobile World Congress in Kigali, Rwanda, will bring together prominent figures from across the mobile ecosystem to celebrate Africa's impressive advancements in connectivity, its growing digital use, and to engage in discussions about the specific connectivity challenges faced by the continent. His Excellency Paul Kagame, the President of the Republic of Rwanda, will formally open MWC Kigali on 17 October at the Kigali Convention Centre.

African tech startups broke records in 2022 by raising over USD 3 billion in funding with the digital revolution significantly changing the way business is conducted creating new opportunities for entrepreneurs, innovators, and consumers

MWC's "Accelerate Africa" theme includes several sessions looking at the growth in connectivity across Africa, as well as the strong appetite from companies within the region to adopt

*African tech startups broke records in 2022 by raising over USD 3 billion in funding with the digital revolution significantly changing the way business is conducted creating new opportunities for entrepreneurs, innovators, and consumers.*



groundbreaking new technologies such as AI, AR/VR, Web3 and the Metaverse. Under this theme, the event is expected to also dive into how emerging technology start-ups are reshaping the continent's entrepreneurial sector. Other themes include, FinTech, HealthTech, and Powering Digital.

Affordable handsets and broadband, which have been key barriers in Africa's digitalization journey, will also come under discussion at MWC Kigali. Notably, Sub-Saharan Africa has made great strides in making mobile innovation an enabler of change. Today, 85 percent of the region is covered by mobile networks, but the remaining 15 percent, which accounts for about 200 million people, remains unconnected.

SAMENA Council will be contributing insights to the MWC leadership discussion on "Building a Connected Africa", to be held on October 18th. CEO of SAMENA Council, Bocar BA, believes that "Bridging Africa's digital gaps, requires not only infrastructural investments but also addressing device affordability, enhancing digital literacy, and curating relevant content." [📄](#)



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## GLOBAL CYBERSECURITY FORUM

# GCF Institute to Bring Stakeholders Together to Chart Shared Priorities in Securing Cyberspace

Global thought leaders, decision makers, and cybersecurity experts will convene again in Riyadh, Saudi Arabia, for the Global Cybersecurity Forum (GCF) on November 1 this year.

This year's event will be held under the theme of 'Charting Shared Priorities in Cyberspace' and will build directly from the outcomes and insights of the successful 2022 GCF event, aiming to advance the global cyber community towards aligning on strategic priorities, expanding future opportunities, and deepening multi-stakeholder engagement.

Amidst various global challenges – from widespread economic turmoil to geostrategic competition, cyberspace remains a critical domain of importance for businesses and countries alike, transcending physical and conceptual borders. Given the pervasiveness of the domain, cybersecurity represents both a central imperative and a tremendous opportunity for a wide range of stakeholders.



### New Global Cybersecurity Institute to Harness the Potential of Cyberspace

Aiming to unite global action around the shared principles and values, the GCF Institute will tackle the most challenging cybersecurity issues facing governments, businesses, and individuals. It will be a catalyst for the exchange of ideas, driving thought leadership and developing research to inform policy solutions and action. In addition, it will also facilitate international projects and partnerships to strengthen existing efforts on key initiatives.

The GCF Institute will serve as a platform to advance stability, security, and prosperity of Cyberspace by catalyzing socioeconomic change, pushing knowledge boundaries, and uniting global champions. Its objective is to pioneer global initiatives that will maximize the benefits of Cyberspace and build resilience through dialogue, investment, research, and innovation.

Headquartered in Riyadh, the GCF Institute will be guided by an international Board of Trustees, tasked with the responsibility of safeguarding the institution's sustainability and independence. In addition, the institute will have an Advisory Council, composed of international experts carefully drawn from the highest echelons of government, academia, think tanks, and private sector.

Given the inherently integrated and pervasive nature of Cyberspace, its safe and secure development is a shared global responsibility. The ongoing dialogue among key global cybersecurity stakeholders has underscored the need for a new entity that can provide an action-oriented platform, designed to develop solutions to the most pressing issues in Cyberspace. With the launch of the GCF Institute, the global community will be able to count on a new instrument to complement existing efforts and harness the potential of Cyberspace.

Through the Institute, the annual Global Cybersecurity Forum will continue to convene experts and decision-makers from around the world to meet and discuss protecting the most vulnerable in Cyberspace, while maximizing its benefits for everyone.

GCF 2023 seeks to expand dialogue on these diverse challenges and opportunities, advance knowledge generation, and steer collaborative efforts. The forum will be divided into five thought-provoking sub-themes.

*In the last edition of GCF, Bocar BA, CEO – SAMENA Council, had stated that, “In terms of technological innovation, our possibilities are limitless. Next year at the GCF [2023] what we may have to look at is the convergence of two businesses, the business as we know it today and the space economy.”*

**Cyberspace Amidst Polycrisis:** Advancing collective action for cyber stability will look at how multilateral cybersecurity can be progressed in a global environment of overlapping crises and institutional challenges.

**Cyber Growth Unlocked:** Harnessing markets, incentives, and global public cyber goods delves into how cyber economics can be steered, driving growth of the cybersecurity sector to meet current and future challenges and needs.

**Across Cyber Divides:** Building a human-centered and inclusive cyberspace, asks how we can bridge social and development divides across stakeholders and within organizations and institutions.



**Inside Cyber Minds:** Exploring behavioral levers and motivations in cyberspace maps the behavioral and psychological aspects of cybersecurity and cybercrime, illuminating the impacts of behavior and decision-making in cyberspace.

**The final subtheme, Emerging Cyber Horizons:** Maximizing the benefits of paradigm-shifting technologies, considers the future of emerging technologies and their cybersecurity dimensions, and how we can harness their accelerative properties.

The GCF, hosted by the National Cybersecurity Authority (NCA), was launched in February 2020, during the Kingdom of Saudi Arabia's G20 Presidency, as a global platform aiming to build a more resilient and better cyberspace for all. The platform emphasizes the importance of international collaboration among diverse stakeholders and nations to accomplish this goal.

Registrations and the GCF 2023 program, announcing high-profile international speakers, will be made available in due course. 📺

## About the GCF Institute (GCFI)

The GCF Institute (GCFI) is a global platform that seeks to strengthen society's cyber resilience through shared priorities, purposeful dialogue, and impactful initiatives. The GCFI will serve as a space where the world's cybersecurity stakeholders collaborate and act to benefit people of all backgrounds and nations. By harnessing intellectual power and spearheading multilateral collaboration, the GCFI aims to contribute to a more stable and secure cyberspace for all.

# ITU REGIONAL DEVELOPMENT FORUM

## Bahrain to Host ITU RDF 2023 for Arab States in November

The Regional Development Forum for the Arab States (RDF-ARB) is organized by the International Telecommunication Union (ITU's Telecommunication Development Bureau (BDT)) and hosted by the Ministry of Transportation and Telecommunications of the Kingdom of Bahrain. The forum will take place from 6 to 7 November 2023 in Manama, Bahrain and will be held in hybrid format with interpretation in Arabic and English. The RDF will be followed by the Digital Regulation Workshop for the Arab States on 8 November 2023, and it will only be in person training.

RDF-ARB will report on the progress that has been made towards the implementation of the outcomes of the World Telecommunication Development Conference 2022 (WTDC-22) held in

Kigali, Rwanda in June 2022. Emphasis will be given to the five Regional Initiatives for Arab Region approved at WTDC-22 as well as other activities under the five thematic priority areas adopted at WTDC-22.

The Annual Regional Development Forum for the Arab States provides an opportunity for the exchange of views between ITU and its stakeholders including ITU Member States, Sector Members as well as other stakeholders in the Arab Region. It serves as a platform for an exchange of views on how to achieve meaningful connectivity and sustainable digital transformation in the region.

A special segment of this year's RDF will be dedicated to Partner2Connect (P2C) matchmaking between Member States

### ITU-D Priorities identified in the Kigali Action Plan

ITU-D priorities are identified as key work areas that will support the achievement of the ITU strategic plan for the current planning cycle. They are listed in the Kigali Action Plan to facilitate delivery of the ITU-D mandate and to give guidance to BDT for the next planning cycle on what ITU-D aims to achieve, in line with the overall RBM approach and the strategic goals and thematic priorities of the Union.

- Affordable connectivity
- Digital Transformation
- Enabling Policy and Regulatory Environment
- Resource Mobilization and International Cooperation

ITU REGIONAL DEVELOPMENT FORUM

# ITU RDF

## ARAB STATES BAHRAIN 2023

6-7 November  
Manama, Bahrain

With the side event 'Digital Regulation Workshop' on 8 November

#ITURDF  
itu.int/go/RDF-ARB-23  
Follow us at @ITUArabStates

Organized by

*“The Partner2Connect Digital Coalition is a game-changing opportunity to take a holistic approach, catalyze new partnerships, and mobilize the resources needed to connect those who are still offline. P2C will open new avenues for stakeholders who understand that collaboration is the only way through which we will ever tackle a challenge of this scale and magnitude. I am calling on all players and partners to join P2C and work together so we can achieve our goal of meaningfully connecting those 2.6 billion people who are still offline.”*

**Doreen Bogdan-Martin**  
**Secretary-General, ITU**

The **Partner2Connect Digital Coalition** is a multistakeholder alliance launched by ITU in close cooperation with the Office of the Secretary-General’s Envoy on Technology, the UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Islands Developing States (UNOHRLLS), and in line with the UN Secretary-General’s Roadmap for Digital Cooperation. The Partner2Connect Digital Coalition fosters meaningful connectivity and digital transformation globally, with a focus on but not limited to hardest- to-connect communities in Least Developed Countries (LDCs), Landlocked Developing Countries (LLDCs) and Small Island Developing States (SIDS).

needs and partner pledges under the P2C Digital Coalition. The aim will be together with partners, to operationalize these pledges and implement impactful projects across the Arab Region. New pledges could also be announced on this occasion.

RFD-ARB will also feature a dedicated session for the Network of Women (NoW) in the Arab Region to showcase the progress and the strategy of the NoW Arab Regional group as well as its future plans.

Following the RDF-ARB, the “Digital Regulation Workshop” will be organized on 8 November at the same venue, with the kind support of the Kingdom of Saudi Arabia. The workshop will only be available as in-person training.

#### **Role of ITU Regional Office**

As part of the RDF-ARB, the ITU Regional Office for the Arab States has launched a Regional Consultation that presents an opportunity for ITU Member States to highlight their priority needs over and above the regional priorities as expressed in the Regional Initiatives, and other stakeholders based on the Partner2Connect Coalition pledges to express their commitments to contribute and support the implementation of projects and activities.

#### **Participation in RDF-ARB**

Regional Development Forums are open to all stakeholders involved in digital development and digital transformation with an interest in forging multistakeholder partnerships. Key participants include telecommunication/ICT policymakers, regulators, industry, academia, United Nations Agencies, regional and international developmental agencies, and banks. [📍](#)

#### **The Arab Regional Initiatives adopted for the period 2023-2025 are as follows:**

**Regional Initiative 1:** Sustainable digital economy through digital transformation

**Regional Initiative 2:** Enhancing confidence, security and privacy in the use of telecommunications/information and communication technologies in the era of new and emerging digital technologies

**Regional Initiative 3:** Developing digital infrastructure for smart sustainable cities and communities

**Regional Initiative 4:** Building capacities and encouraging digital innovation, entrepreneurship and future foresight

**Regional Initiative 5:** Developing means of digital regulation

## WORLD RADIOCOMMUNICATION CONFERENCE

# WRC-23 Preparations: Finding Common Ground on Spectrum Allocation and Regulation



The International Telecommunication Union (ITU) has completed its final review of key topics for the upcoming World Radiocommunication Conference (WRC-23).

Radiocommunication experts from national administrations, regional and international organizations, and other United Nations agencies, as well as service operators and equipment manufacturers, met in Geneva, Switzerland, to complete the four-year preparatory cycle.

This third and final inter-regional workshop on WRC-23 preparations provided updates on topics to be addressed at WRC-23, as well as at the preceding Radiocommunication Assembly (RA-23), both taking place in Dubai, United Arab Emirates, in November and December.

Experts from regional groups presented views, positions, and proposed solutions based on the WRC-23 agenda, reflecting the latest results of preparatory studies conducted through the ITU Radiocommunication Sector (ITU-R).

"In today's interconnected world, finding common ground on radio spectrum allocation and regulation is at the heart of global efforts to accelerate universal connectivity and sustainable

digital transformation for sustainable development," said ITU Secretary-General Doreen Bogdan-Martin. "As we enter the final stretch towards WRC-23, collaboration and coordination among different regions and countries is more crucial than ever to reach consensus on vital aspects of spectrum management."

Insights to shape spectrum management The inter-regional workshop allowed participants to exchange views, clarify their respective positions and proposals, and initiate preliminary negotiations to facilitate decision-making at WRC-23. Representatives from different world regions each brought unique insights and priorities.

"This diversity of perspectives is essential for finding common ground and addressing the specific needs of different regions and countries," said Mario Maniewicz, Director of the ITU Radiocommunication Bureau.

"I am delighted that despite the meeting restrictions related to the COVID-19 pandemic, we have been able to make significant progress in preparations for WRC-23 and pave the way towards effective spectrum management," he added. "The resulting insights and collaborations will shape our discussions and decisions at WRC-23, ensuring the

world remains connected and people can communicate seamlessly, anywhere and at any time, in the years to come."

The review of selected WRC-23 agenda items spanned technology and associated regulatory challenges and questions – from International Mobile Telecommunications (IMT) and mobile broadband to crucial frequency allocations for broadcasting, aeronautical, maritime, satellite, science, and amateur radio services.

Global representation and engagement More than 800 participants attended the workshop, either in person or remotely.

The discussions included leaders and experts from the main regional telecommunication organizations reflecting six ITU regions that span the globe:

Asia-Pacific Telecommunity (APT) Arab Spectrum Management Group (ASMG) African Telecommunications Union (ATU) European Conference of Postal and Telecommunications Administrations (CEPT) Inter-American Telecommunication Commission (CITEL) Regional Commonwealth in the Field of Communications (RCC) World Radiocommunication Conferences, held every three to four years, review and revise the ITU Radio Regulations, the international treaty governing the use of the radio-frequency spectrum and satellite orbits.

WRC-23 takes place between 20 November and 15 December. It is preceded by RA-23 from 13-17 November, responsible for establishing the structure, leadership, and programme for ITU radiocommunication studies over the next four years. [📄](#)

# ARTIFICIAL INTELLIGENCE WITH A PERSONALITY



Today's digital assistants are indeed game changers. They streamline our tasks, respond to our queries, and simplify our day-to-day. While AI excels in delivering prompt information, it sometimes fails to grasp the nuances of human emotion. A UCL study found that humans identified emotions with 72% accuracy, while AI ranged between 48%-62%.

This emotional disconnect means that digital assistants might occasionally overlook or misjudge our sentiments, providing less personalized, less relevant responses.

Our mission at Yango was to merge AI intelligence with emotional awareness. As a result, Yasmina might be the most

human-like AI assistant you will encounter. Beyond the usual AI capabilities, Yasmina offers conversations that feel like you are chatting with a fellow human.

Yasmina is fluent in major Arabic dialects, discerns user gender, and has an intuitive understanding of Khaleeji culture.

### The technology behind Yasmina

In essence, Yasmina's technological foundation consists of natural language understanding, speech recognition, and speech synthesis.

To build the speech recognition component of Yasmina, we worked with the voices of hundreds of people from Riyadh, Jeddah, Dammam, and more. This wide variety of

voices, spanning various ages and genders, empowered Yasmina to recognize diverse speech nuances and dialects.

A 3-billion-parameter language model drives Yasmina's conversational flair. This model was fine-tuned with the help of numerous copywriters and content contributors, who edited and perfected Yasmina's dialogs.

When choosing Yasmina's voice, we selected the voices of six Saudi locals and found the one that resonated the most through popular vote.

### Beyond simple tasks

Yasmina isn't just a conversationalist. The assistant can adjust your room's ambiance, activate your air purifier, play your top tracks, suggest dinner recipes, and brainstorm business plans. Our vision is for Yasmina to be the pinnacle of bilingual AI assistants with high emotional intelligence tailored to GCC households. Yasmina is going to be more than just an app on your phone. The assistant can be built into a wide range of things, including streaming apps, smart home devices, and smart speakers.

We are continuously refining the YasminaGPT model to enhance the assistant's fluency, creativity, and versatility. Yasmina is even learning to whisper. After all, being human-like means constantly learning and evolving. 🌱

### About the Author

#### Samer Mohamad

#### Yasmina Regional Director for MENA, Yango

As Yasmina's Regional Director, Samer oversees the entire MENA region, manages local teams, and builds relationships between clients and stakeholders. He is also a licensed project management professional.

### About Yango:

Yango is a ride-hailing service that gets people where they want to go quickly, safely, and affordably. It operates in over 600 large cities across 17 countries around the world. Yango, as a tech platform, specializes in transformation of global technologies for local enrichment, and to enhance daily experiences of users. Yango features smart mapping, routing, and navigation technologies and harnesses machine learning for its order distribution system.

## STATE OF THE WORLD'S BROADBAND

# Broadband Development around the World: Considerations for the Road Ahead

The events of the last three years, with a global health pandemic and the swift international pivot to digital delivery of goods, services, work, and play, have yielded unique insights into just how critical stable, broadband access is and will continue to be. While the global markets still face strong economic headwinds today, digital connectivity has accelerated as peo-

*"We won't rest until we live in a world where meaningful connectivity is a lived reality for everyone, everywhere."*

### Key Considerations

1

Defining (and re-defining) measurable goals for "universal meaningful connectivity" to meet today's needs

2

Close the Usage Gap by addressing key barriers to people adopting and using the Internet where coverage is available

3

Broaden contributor base and implement creative funding approaches, including incentivising infrastructure funding, reforming USAF approaches

4

Alignment and incentivizing funding contributors is key for government connectivity plans, mobilizing all sectors' pools of capital by removing challenges and barriers to network infrastructure investment

5

Build network infrastructure policies to last with sustainable and agile plans



Annual flagship report of the  
Broadband Commission

## The State of Broadband 2023

Broadband Commission's recently launched report, *Digital Connectivity: A Transformative Opportunity*, examines the shift from supply-driven to demand-driven communication access, providing insights into the financing and funding considerations required to support the next stage of connectivity for digital transformation.

ple, businesses, and governments pivoted strongly towards online communications, and we continue to see new internet devices and applications, growing broadband penetration into developing markets.

The Broadband Commission for Sustainable Development continues to see progress as we move towards universal and meaningful online activity. It is heartening to note that the global offline population continues to steadily decline to 2.6 billion people in 2023, a reduction from the estimated 2.7 billion people offline in 2022.

"This improvement in connectivity is another step in the right direction, and one more step towards leaving no one behind in support of the UN Sustainable Development Goals," said ITU Secretary-General Doreen Bogdan-Martin."

This year's ITU State of Broadband 2023 reviews the progress of the seven Advocacy Targets, and notes the wins that can be seen as we move towards broadband being universally available, equitable, and affordable. Yet despite the gains, market trends for consumption and supply are shifting, and may not be strong enough to guarantee that the objective of universal and meaningful connectivity will be met by 2030. It therefore looks at the cost of meeting Broadband Commission targets – what are the considerations for how the next lap of connectivity for digital transformation can and should be financed and funded? It offers five considerations for the road ahead.

The Broadband Commission for Sustainable Development welcomes stakeholders and partners to work on achieving universal and meaningful connectivity by 2030, to ensure not just connectivity, but also that those who are connected have the skills and knowledge to use it. [📄](#)

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## Micro, Small, Medium Enterprises

# MSMEs Critical to Sustainable and Inclusive Global Development

Connecting MSMEs is critical to sustainable and inclusive global development. The connectivity of micro, small, and medium enterprises (MSMEs) to the Internet and broader digital economy is an under-looked development issue. The Broadband Commission Advocacy Target 6 focuses on increasing the connectivity of MSMEs by 50%. MSMEs form the largest share of their economies and are critical to helping to achieve the SDGs. Digital connectivity helps MSMEs to become more efficient and grow revenues. Increasing MSME connectivity delivers significant social and economic benefits.

The Broadband Commission Working Group on Connectivity for MSMEs seeks to identify the challenges and opportunities of getting more micro-, small- and medium-sized enterprises (MSMEs) in low- and middle-income countries (LMICs) online and engaging in online trade. Co-chaired by Ms. Pamela Coke-Hamilton, Executive Director of the ITC, and Mr. Mats Granryd, Director General of the GSMA, core elements of the Working Group's research were drawn from a major study by the GSMA on the digital and financial inclusion of female micro-entrepreneurs in Africa and Asia, supported by the Bill and Melinda Gates foundation, and work on digital connectivity and its economic usage by MSME in West Africa by ITC.

### Challenges in MSME Connectivity

- Relevant data on MSME connectivity needed to track progress toward the Broadband Commission Advocacy Target is not available
- There is a lack of global data and understanding of how MSMEs are using their connectivity and the barriers for those MSMEs not online
- There is a digital divide between micro and larger enterprises: small enterprises have a lower propensity to use digital connectivity in their business
- The gender digital divide has resulted in a lack of digital inclusion for female-led businesses

### Framework for Connectivity

- Universal and meaningful connectivity for individuals and households is the focus of the UN and its agencies.
- The framework for achieving that goal includes making access available, affordable, and relevant, teaching digital skills, and making access safe and secure.
- Digital enablers can help MSMEs to turn connectivity into economic value, including cloud services, e-commerce platforms, digital financial services, and e-government services.

## Connectivity and digital tools can benefit MSMEs by

- 1 Streamlining operations and increasing sales
- 2 Expanding partnerships, access to resources & new opportunities
- 3 Enabling the development of new, 100% online businesses
- 4 Advancing the Broadband Advocacy Targets & SDGs



The Working Group has developed a five-part framework and four core recommendations for all stakeholders to play their part in enabling MSME connectivity.

Acceleration of digital connectivity has been in progress since the recent global pandemic. The good news in 2021 was that the number of digitally connected individuals rose sharply. However, there is an urgent challenge to connect the un-

connected, nearly all in low-and middle-income countries (LMICs).

A priority should be MSMEs in these countries –key drivers of the economy and providers of employment –most of whom do not fully leverage digital connectivity to run their businesses and engage in trade. Increasing access and capability to use digital channels and tools could be one of the most powerful mechanisms to boost the resilience of small businesses in LMICs

and ensure their contribution to achieving the SDGs.

Greater adoption of digital technology and participation of MSMEs in digital trade brings important economic benefits, drives the demand for digital capacity and in turn improves the business case for further investments in infrastructure: a virtuous cycle that can accelerate the expansion and improvement of connectivity. 

## e& TAKING THE LEAD IN DIGITALLY TRANSFORMING SOCIETIES



**Hatem Dowidar**  
GCEO  
e&



In a fast-paced era of advanced technology, adaptation and innovation are key drivers of business success. For e&, a company with a long legacy in telecommunications, embracing change and redefining its identity was not just a choice but a necessity in order to thrive in an ever-evolving digital landscape.

Hatem Dowidar, e&'s group CEO, shares insights into the transformation journey that has propelled the company from a regional telecom giant to a global tech player, ushering in limitless possibilities to drive the digital future and empower the communities in which it serves.

### **Moving beyond Telecom**

Traditionally known for its telecom services, e& has embarked on a path that extends far beyond its established identity.

"We bring a legacy of [more than] 47 years serving the connectivity needs of our customers. We are always defined by our progressive outlook and spirit of innovation," says Dowidar. "With the world changing and the aspirations and needs of our customers evolving, we [believe it is] essential for us to stay one step ahead—as we always have been—by providing relevant solutions while enhancing our agility, responsiveness, and flexibility."

The transformation of Etisalat to e& has been a gradual process rooted in the Group's telecom heritage. It had already set up Enterprise Digital as a separate business unit to expand its offerings and make headway into the technology realm. However, to meet customers' growing needs, the company realised it was time to adopt a growth mindset, create a future-ready business model, and focus more on value creation.

In 2022, the Group began a new chapter in its evolution with a clearly defined and calculated business growth strategy. The strategic pivot involved:

- Building multiple, diversified revenue streams with five specialist business pillars.

- Diversifying local, regional, and global operations.
- Amplifying organic growth.
- Exploring new markets and strategic opportunities.

To achieve this, the company put its people at the heart of the transformation, empowering the team to ideate new technologies and services that add more value to customer experiences and the communities served.

The transformation was successful due to the Group's strong foundation, innovative products and services, rich content, and digital experiences.

In 2022, e& announced a new chapter in its evolution with a clearly defined business growth strategy, expanding its reach into various digital verticals, including cloud services, AI, IoT, cybersecurity, fintech, entertainment and content. This strategic shift was evident in e&'s series of acquisitions and investments over the past 18 months, showcasing its commitment to diversification and its ability to adapt to changing consumer demands.

*The transformation is an ongoing journey, and with its enriched, and better-structured business model, e&'s vision is to move forward as a customer-focused, technology-driven, and digitally oriented group empowered by next-generation technologies.*

"We did not set boundaries for ourselves—and that continues to be our strength," says Dowidar. "We needed to have flexibility to enable hyper-scaling based on a deeper understanding of customer needs, which called for realigning our operations by creating a new, diversified business model."

The inspiration behind transforming e& from a telco into a global technology group

was driven by several factors and a clear understanding of the evolving business landscape.

As a telecom company with a strong legacy and market presence, e& recognised that the digital revolution was reshaping industries and customer expectations. It saw the immense potential in leveraging its existing infrastructure, expertise, and customer base to extend beyond traditional telecom services and explore new avenues for growth and innovation.

It made strategic investments and also expanded its footprint into multiple countries, particularly in Europe, Africa, and the Middle East, tapping into new markets and opportunities.

"Fostering a culture of innovation and collaboration was key to its success. We actively sought partnerships with startups, industry leaders, and governments, co-creating solutions to address emerging challenges. Our rebranding to e& reflected a shift in our identity, signalling that we were more than a telecom provider; we were a global technology group. This transformation was underpinned by a commitment to upholding the UAE's sustainable economic development and diversification plans."

"Our journey was marked by adaptability, agility, and a relentless pursuit of excellence. It's an ongoing process, and we remain committed to pushing boundaries and shaping the future of technology," said Hatem.

The focus on value maximisation across

our operations and systematic expansion through both organic means and acquisitions drove strong performance and significant milestones and achievements in 2022.

The Brand Finance Global 500 Report recognised our telecom brand portfolio in the MEA region as the most valuable, valued at over \$14 billion. Additionally, e& remains the strongest telecom brand across all categories in the MEA region and consistently ranks among the top three telecom brands globally, showcasing our impressive market reach and operational capabilities.

The transformation is an ongoing journey, and with its enriched, and better-structured business model, e&'s vision is to move forward as a customer-focused, technology-driven, and digitally oriented group empowered by next-generation technologies.

The company's transformation was driven by establishing five specialised business verticals: etisalat by e&, e& international,

*As part of its new, diversified business profile, e& aims to deliver high-value solutions through cutting-edge technologies, such as 5G, artificial intelligence, blockchain, and IoT (Internet of Things).*

e& life, e& enterprise, and e& capital. These pillars have diversified revenue streams, expanding e&'s presence across all geographic markets, fueled organic growth, and led to the exploration of new market opportunities and strategic ventures. Each vertical has an underlying strategy and focuses on ensuring e& continues to meet

*e& envisions itself as a global technology group with a growth mindset, a progressive outlook, and an innovative spirit. The goal of expanding beyond its telco roots into fintech, IOT/AI, cybersecurity, and content aggregation is boundary-breaking growth and leading toward a brighter digital future.*

the needs of its stakeholders; listen to its customers, partners, and employees; and improve its offerings.

#### **Taking the lead in innovation**

As part of its new, diversified business profile, e& aims to deliver high-value solutions through cutting-edge technologies, such as 5G, artificial intelligence, blockchain, and IoT (Internet of Things).

The company has strategically invested in acquisitions in the technology and telecom sectors, forging partnerships with global technology leaders to drive innovation. These collaborations allow e& to develop new products and services, gain valuable insights into customer needs and preferences, and expand into new markets. Additionally, e&'s strategic partnerships with leading financial service firms focus on promoting financial inclusion and access. e& envisions itself as a global technology group with a growth mindset, a progressive outlook, and an innovative spirit. The goal of expanding beyond its telco roots into fintech, IOT/AI, cybersecurity, and content

aggregation is boundary-breaking growth and leading toward a brighter digital future.

Specialised business pillars like etisalat by e&, e& international, e& life, e& enterprise, and e& capital have been established to diversify revenue streams and expand reach. Further investment in these pillars will increase revenue and create a balanced geographical profile with higher non-telco contributions.

We closely monitor industry trends and emerging technologies globally, fostering a culture of innovation where employees feel comfortable taking risks and trying new things. We seek strategic partnerships and collaborations to access resources and expertise, accelerating product and service development.

Our focus is on the "segment of one," using data, analytics, AI, and automation to create tailored products, services, and strategies for meaningful customer engagement and improved user experiences.

We aim to expand our presence in new markets while growing our portfolio in existing ones through organic development and selective mergers and acquisitions. Our primary focus is meeting both traditional and innovative connectivity demands.

#### **Expanding beyond borders**

Through its transformation efforts, e& is on a trajectory of unparalleled expansion, boasting one of the highest market capitalisations worldwide while delivering value to customers and shareholders across 16 countries in the Middle East, Asia, and Africa and serving more than 165 million subscribers.

Mergers and acquisitions have played a pivotal role in e&'s growth strategy. "We have always believed in the power of partnerships," says Hatem.

e& broadened its horizons with investments in Vodafone to enhance and develop its international portfolio providing an opportunity to expand into new markets in Africa, Europe and Asia as well as areas outside telecom. This was followed by the binding agreement to acquire a majority stake in PPF Telecom expanding into Central and Eastern Europe mainly Bulgaria, Hungary, Serbia and

Slovakia. The \$400 million investment in Careem was another strategic move that was in line with our ambitious strategy, expanding our range of services and digital offerings for consumers while propelling our transformation into a global technology group.

Through strategic acquisitions like elGrocer, Smartworld, and a merger with Khazna, we're expanding beyond telecom into diverse sectors. STARZPLAY's acquisition demonstrates our commitment to international expansion in the entertainment and financial technology domains.

Beyond telecoms, we're strengthening our presence in fintech, entertainment, and SuperApps, simplifying digital interactions and shaping the future of personalised digital experiences worldwide. Leading the digital transformation journey across the business sector, e& enterprise made considerable achievements with acquisitions and strategic partnerships to deliver the best technologies that empower businesses across the region.

e& enterprise acquired a majority stake in Beehive, MENA's leading peer-to-peer

*Sustainability is at the core of e&'s mission, embedded in our commitment to Environmental, Social, and Governance (ESG) standards. This commitment is integral to our overarching strategy and holistic vision for the future. We firmly establish a vital link between environmental and social governance alongside the technological advancements evident in our operations.*

digital platform, to tap into opportunities in the Small and Medium Enterprise (SME) lending market. This also marked the next step in e& enterprise's expansion, as the move demonstrates its commitment to opening new avenues of growth across the UAE and in the region, while enabling Beehive to scale its business and expand its offerings. Staying committed to the UAE's vision of becoming a global hub for future industries, e& enterprise IoT & AI partnered with Maxbyte Technologies to deliver cutting-edge solutions for Industry 4.0, leveraging both companies' combined expertise and experience.

Keeping in line with e& enterprise's mission to drive digital transformation for companies across industries, it implemented engageX solutions for Audi from Al Nabooda Automobiles to automate their customer service support over digital channels.

#### Committing to sustainability

Our business today is committed to addressing global climate challenges and actively participating in the global climate action agenda. Notably, e& is the first private sector group in the UAE to join the "Independent Accelerators Project in the United Arab Emirates for Climate Change" (UICCA), underscoring our dedication to building a sustainable future.

We are delighted to announce our partnership with e& as a key technology partner for the upcoming COP28 conference, set to take place in the United Arab Emirates. This collaboration builds upon e&'s previously announced commitment during its participation in last year's COP27 conference. Our goal is to achieve net-zero carbon emissions in scopes 1 and 2 within the group's operations in the UAE by 2030.

This partnership marks a significant milestone in e&'s journey towards realising its climate neutrality strategy within its operations. Simultaneously, we remain steadfast in our efforts to contribute to environmental preservation in the markets we operate worldwide. The COP28 conference holds particular significance for us, as it allows us to unite efforts and collaborate with partners in driving positive

and tangible change. We aspire to set an exemplary model for other companies concerning contributions to sustainability initiatives.

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On the environmental front, e& has taken substantial steps to reduce carbon emissions. One noteworthy initiative involves deploying energy-efficient wireless equipment at our mobile phone network sites. This transformation has led to a remarkable 52 per cent reduction in energy consumption compared to conventional equipment. This translates to an annual decline of 7.6 tons of carbon dioxide emissions per site. By championing such initiatives, we aim to inspire other organisations to join us in creating a more sustainable future, a crucial step in accelerating global climate action.

In our commitment to community well-being, e& remains dedicated to aligning our efforts with our core values. Our mission goes beyond connecting communities digitally; it encompasses supporting and empowering these communities across various domains. We believe in our role in

enhancing the lives of people across the globe.

As a testament to our commitment, e& has joined the "Edison Alliance" affiliated with the World Economic Forum. Through this alliance, we have pledged to impact the lives of 30 million individuals by 2025 positively. Our commitment entails improving network access, offering digital financial services, and providing technological education. This reaffirms our dedication to making a positive global impact by prioritising digital inclusion to achieve the United Nations Sustainable Development Goals.

*The Group's climate action projects, implemented by etisalat by e& in the UAE, include the use of the latest generation of energy-efficient radio equipment with advanced Artificial Intelligence features to optimise energy consumption for different traffic loads while maintaining network performance.*

We are proud to be a member  
of the World Economic Forum's  
EDISON Alliance

1 BILLION  
LIVES  
EDISON ALLIANCE

e&  
etisalat and

This commitment is further exemplified through our collaboration with the global organisation Code.org. We're actively supporting their programme to promote computer science and software education in markets where our group operates across the Middle East, Asia, and Africa. This not only strengthens the role of technology in educational curriculum but also presents an opportunity for collaboration with partners to invest in future technologies, fostering innovative solutions that advance the educational sector.

*e& remains steadfast in its commitment to achieving sustainable growth during our ongoing strategic transformation journey. As we expand our operations into more global markets, we remain deeply rooted in the group's operations and plans.*

Inclusivity and diversity principles are integral to our business across various sectors. Our support for the United Nations initiative to empower women, as evidenced by our adherence to its principles, underscores our commitment to fostering a positive impact at the local, regional, and global levels. This aligns with our strategy to achieve gender balance as we transform into a global technology group.

Additionally, e& has extended support to communities during crises, such as natural disasters in Morocco and Libya. We provided free calls through "etisalat by e&" and enabled free international transfers to these affected regions via the "e& money" application. We aimed to facilitate communication and offer much-needed support during these challenging times.

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The Group's climate action projects, implemented by etisalat by e& in the UAE, include the use of the latest generation of energy-efficient radio equipment with advanced Artificial Intelligence features to optimise energy consumption for different traffic loads while maintaining network performance.

The global technology group has invested heavily in converting indoor sites to outdoor free cooling solutions, reducing the GWP (Global Warming Potential) of refrigerants by recovering, recycling and reusing refrigerant gases, and using on-site renewable energy through solar panels and hybrid power solutions for off-grid sites to replace the use of diesel generators.

etisalat by e&'s first deployments of energy efficient radio equipment have reduced energy consumption by 52 per cent compared to previously deployed radio equipment. The reduction in energy consumption is equivalent to 7.6 tonnes of CO2 emissions per site per year for high-level sites configured with 4 LTE carriers.

Since 2019, e& has accelerated energy efficiency programmes and managed multiple initiatives to reduce greenhouse gas emissions, avoiding more than 380,000 tonnes of CO2 emissions in three key markets (UAE, Pakistan and Egypt).

According to the Science Based Targets initiative (SBTi), e& is now recognised as 'Committed' to the near-term science-based targets. SBTi is a collaboration between the Carbon Disclosure Project, the United Nations Global Compact and the World Resources Institute, to set an emissions reduction trajectory between 2020 and 2030 for all Information and Communications Technology (ICT) sub-sectors.

The Group's programme will set out a clear roadmap to net zero carbon emissions to drive forward its sustainability initiatives that have a positive human impact on future plans and operations

#### Roadmap for the future

Dowidar believes e&'s diversification, international expansion, dedication to sustainability, and transformation into a global tech company is setting the stage

*The strategic expansion into Europe is the next step of our transformation into a global technology group, offering e& multiple avenues to roll-out its leading suite of B2B and B2C digital products in the CEE with significant synergies.*



General view - Stairs side

Beematters 2023 ©

for significant growth in the coming years. He has seen a number of telcos following and announcing similar plans.

"Our ambition is clear—we want to be one of the top 10 global companies in market capitalisation not just within the telecom industry, but across all sectors," he says.

e&'s performance during the first half of the year reinforces the resilience of our business model despite the challenging global macroeconomic environment. This was also the result of our teams' relentless efforts to remain committed to our vision and drive sustainable growth, making a positive change in the societies we serve while adding value to our shareholders.

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The acquisition aligns with e&'s strategic ambition to accelerate international growth and diversify geographically. This represents an unparalleled opportunity to establish a strong presence and foster development within the dynamic CEE region. The PPF Telecom portfolio, spanning four countries, exhibits a well-balanced structure, underpinned by robust macroeconomic fundamentals and stable

currencies. The countries of its operations are characterised by regulatory stability, healthy competition, and highly attractive returns, positioning them among the most promising in Europe. e& will consolidate more than 10 million subscribers from this acquisition post-closing.

We achieved remarkable progress in our strategic focus areas, supported by strong performance in our core telecom business, increased demand for our innovative digital services and solutions, and a commitment to deliver cutting-edge solutions that accelerate digital transformation in the communities we serve. During the period, we also made strategic investments and fostered partnerships that will drive our growth in the coming years, pushing us to seize new opportunities in the fast-evolving digital landscape.

In line with the UAE leadership's vision, we are committed to continuing progress and development and enhancing our confidence in the added value e& provides. We are resolute in our commitment to spare no effort in delivering cutting-edge technologies and world-class services that will not only shape the digital future but also turn the vision of sustainable socio-economic growth into a tangible reality. With the utmost dedication, we aim to play an instrumental role in fostering a knowledge-based economy, cementing our

position as a driving force for innovation and progress.

Over the past six months, we have demonstrated a strong sense of resilience and adaptability. Our relentless focus on excellence and innovation has allowed us to thrive in the dynamic landscape of the telecommunications and technology sectors, maintaining our growth momentum.

Our consolidated revenues during the first half of the year reached AED 26.6 billion, with a year-over-year increase of 1.1 per cent. Consolidated net profit recorded AED 4.7 billion while consolidated EBITDA reached AED 12.8 billion, resulting in an EBITDA margin of 48 per cent. This positive performance has been driven by our core businesses and our new business verticals, which have seen an increase in demand domestically and internationally.

This growth was also fueled by harnessing the power of our technological prowess, leveraging our expertise to forge new paths, disrupt industries, and transform the way we do business on a global scale. Our commitment to pushing boundaries and embracing change has positioned us as a true trailblazer in the digital era.

Our success has been driven by the combination of our innovative, customer-centric strategies and the unwavering dedication of our teams, along with our investment in world-leading infrastructure and cutting-edge technologies that consistently serve as the foundation of our achievements.

With its commitment to creating a vibrant, connected future where opportunities are boundless and technology is a force for positive change, e& is poised to shape the world of tomorrow. As it continues to stand at the forefront of digital transformation and innovation, the company is undoubtedly one to watch. 🌱

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# SAMENA COUNCIL ACTIVITY

## Broadband Commission Urges Collaborative Action to Accelerate Connectivity and Progress on Sustainable Development Goals



connectivity—stressed that accelerating universal and meaningful connectivity through partnership and cooperation is essential to achieve the UN Sustainable Development Goals (SDGs) by 2030. “We need to build a digital future that is inclusive, affordable, sustainable, safe and people-centered,” said Commission Co-Chair Carlos Slim. “There should be no digital deserts in the world, and there should be no one excluded from connectivity. People have the right to enjoy a safe, productive and affordable online experience. Broadband should enhance the quality of life of everyone.” At the meeting, the Commission called for innovative investment models to bring together private and public stakeholders to deliver meaningful access and content to those most in need. “As technology advances and 2.6 billion people remain unconnected, it’s crucial to prioritize

The Broadband Commission for Sustainable Development called for a joint global effort to achieve universal and meaningful connectivity by 2030 at its annual Fall Meeting held at UN Headquarters in New York. According to the Commission, the collaborative effort must ensure that people around the world are not only connected, but that they also have the skills and knowledge to use that connectivity. The Broadband Commission—a high level public-private partnership fostering digital

cooperation and developing actionable recommendations for achieving universal

*“As technology advances and 2.6 billion people remain unconnected, it’s crucial to prioritize universal and affordable broadband access, coupled with investments in digital skills, and the elements that truly define meaningful connectivity, such as inclusive and localized digital content, accessible hardware, cybersecurity measures, and policies that ensure digital inclusion for all”*



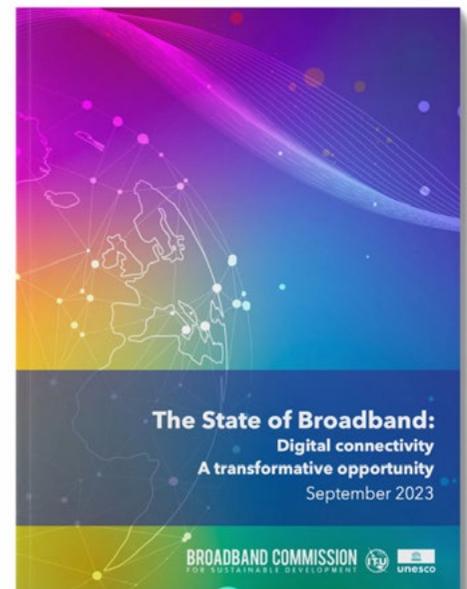
universal and affordable broadband access, coupled with investments in digital skills, and the elements that truly define meaningful connectivity, such as inclusive and localized digital content, accessible hardware, cybersecurity measures, and policies that ensure digital inclusion for all," said Hon. Paula Ingabire, Rwanda's Minister of Information Communication Technology and Innovation representing Rwandan President Paul Kagame, Co-Chair of the Commission. The Commission's meeting comes amid the recent ITU announcement that 2.6 billion people across the world still lack access to the Internet in 2023. The reduction from the estimated 2.7 billion people offline in 2022 leaves about one-third of the global population unconnected. This year's Annual Meeting also took place ahead of SDG Digital, an event convened by the International Telecommunication Union (ITU) and United Nations Development Program (UNDP) to highlight how digital solutions can support the UN's 2030 Agenda for Sustainable Development. "Tech is racing ahead and billions of people are being left behind," said ITU Secretary-General Doreen Bogdan-Martin, a Co-Vice Chair of the Commission. "Our task is to invest in affordable broadband, digital skills, and everything that makes connectivity meaningful." At the meeting, the Broadband Commission launched "State of Broadband Report: 2023 Digital Connectivity – A Transformative Opportunity." The latest edition of the annual report reviews the progress of seven Global Advocacy Targets and highlights the opportunities that would come from broadband that is universally available, equitable and affordable. This year's report notes that market trends for consumption

and supply are shifting despite gains in connectivity. Those trends may not be strong enough to guarantee that the objective of universal and meaningful connectivity will be met by 2030.

The report offers five considerations for how future efforts on connectivity for digital transformation should be financed and funded:

- defining measurable goals;
- addressing barriers to Internet use where coverage is available;
- broadening the contributor base and implementing creative funding approaches;
- aligning and incentivizing funding contributors;
- building sustainable network infrastructure policies.

"Rapid technological advancements hold transformative potential that, together with renewed global solidarity and international cooperation, will play an essential role to attain the international development goals," said Dr. Tawfik Jelassi, Assistant Director-General for Communication and Information, UNESCO. "The Broadband Commission and UNESCO remain committed to fostering this crucial multi-stakeholder dialogue and producing strategic foresight that will help us set international standards and lead the way in leveraging ICTs for sustainable digital transformation." The Broadband Commission develops policy recommendations and thought leadership focused on the use of broadband connectivity to accelerate progress toward achieving the UN's 2030 Agenda for Sustainable Development and universal and meaningful connectivity. To mobilize efforts to bring the life-changing benefits



of digital transformation to everyone, the Broadband Commission puts broadband connectivity at the forefront of global policy discussions. A Working Group on Data for Learning, chaired by UNESCO, and one on Connectivity for MSMEs, chaired by ITC and the GSMA, presented findings and recommendations of their final reports during the Annual Meeting. Over 50 Commissioners and representatives attended the Broadband Commission meeting. This included government leaders, as well as heads of international organizations, private sector companies, civil society and academia. Special guests attending this year's Annual Meeting included: Mondli Gungubele, Minister of Communications and Digital Technologies of South Africa; Jessica Rosenworcel, Chairwoman of the U.S. Federal Communications Commission; and Kyoung Yul Bae, President, Korea Information Society Development Institute (KISDI).



## MEMBERS NEWS



## sirar by stc Ranked 1st in MENA in the MSSP for 2023

sirar by stc, the cutting-edge cybersecurity provider and one of the stc group subsidiaries, an engine of digital transformation in the region, has been ranked 1st in the Middle East and North Africa and the 11th position globally in MSSP Alert's Top 250 Managed Security Service Providers for 2023 list. This recognition comes from extensive research conducted by the esteemed CyberRisk Alliance. Among the illustrious companies sharing this

global stage with industry giants around the world, sirar by stc stands out as the sole Saudi Arabian company on this list. Furthermore, sirar has undertaken steadfast endeavors since its foundation in 2021 to position itself as the trusted data economy platform. This pursuit is underpinned by its state-of-the-art cybersecurity services, which have been instrumental in bolstering the digital foundations of enterprises within the kingdom

and in the MENA region scale. Through its Managed Security Services (MSS), sirar enables organizations to take control of their digital environments and enhance their cybersecurity capabilities. The comprehensive suite of services includes SOC as a service, VMDR, DDoS protection, email security, web security, Sayn, etc. These offerings expand the horizons of security operations, empowering customers to detect and counteract cyber threats proactively. This achievement underscores the company's unwavering commitment to continually enhance its capabilities and broaden its offerings, thereby empowering organizations to fortify their digital defences and elevate the cybersecurity landscape in the Middle East and Northern Africa. It is worth mentioning the role of the dedicated local expertise in this achievement. This recognition stands as a testament to the commitment of the company's experts in driving growth. It remains steadfast in its promise to deliver cybersecurity services in excellence that meet the highest standards.



## Saudi Giant stc Splashes €2.1B on Telefonica Stake

Saudi Telecom Company (stc) bought a 9.9 per cent interest in Telefonica for €2.1 billion, the Saudi Arabian operator's latest move to increase investments outside of its home market. In a statement, stc backed Telefonica's current leadership and strategy, adding it had no intention of acquiring control or a majority stake in the Spain-based operator group. Telefonica's related stock market statement explained stc had bought 4.9 per cent through direct share capital and "financial instruments that provide economic exposure on another 5 per cent". The Saudi operator currently has voting rights on the direct share capital, with similar rights on the remainder subject to obtaining approval from regulators. Figures published on Telefonica's investor

relations portal list Banco Bilbao Vizcaya Argentaria as its largest investor, with a near 5 per cent share as of the end of 2022, so the full 9.9 per cent would likely give stc top spot. The acquisition is part of a strategy to expand stc's interest in the ICT sector across global markets. As part of this drive, earlier this year it bought €1.2 billion worth of tower assets in Bulgaria, Croatia and Slovenia from Unitel Group through tower subsidiary Tawal, having already expanded that business into Pakistan. Mohammed K. A. Al Faisal, chair of stc, said it and Telefonica have much in common, adding "this long-term, significant investment by stc Group is a continuation of our growth strategy, as we invest in vital technology and digital infrastructure sectors

across promising markets globally". In its disclosure, the Spanish operator cited "stc's friendly approach and its support for the team management, Telefonica's strategy and its ability to create value".



## stc Group presents Its Digital Fintech Solutions During “Seamless Saudi Arabia 2023”

stc Group, the engine of digital transformation in the region, took part in the “Seamless Saudi Arabia 2023” exhibition and conference held in Riyadh. Over 500 exhibiting companies, both local and international, along with 2000 company representatives and 300 speakers, convened at the conference. The group's primary focus revolved around its position as a digital transformation engine for fintech, e-commerce, retail, and payments industries, achieved via avant-garde digital solutions. stc Group exhibited its digital and technical offerings, including implementing Standard and Soft POS through smart devices and payment systems. Additionally, stc provided ATM monitoring services and utilized VR technologies within the Metaverse. Notably, stc leveraged AI technologies for geographical analysis, fraud detection, Anti-Money Laundering, and contact points, among other applications. Channels by stc expanded its offerings by leveraging its logistics arm, dal, to provide last-mile solutions. The company also entered into strategic agreements with key players in the market, including Jahez Company, Alinma Bank, and Basalah e-commerce platform, to solidify its position and ensure sustainability in the market. The services and products offered by myStore were also part of this expansion. During the confer-

ence, stc Group entered two MOUs with Saudi Bright Ware, a company specializing in Software Development and System Integration as well as payment solutions. The MOU will facilitate financial and payment services for stc's business sector clients. In addition, stc has entered a second MOU with Paytabs, a company that specializes in providing payment solutions for business transactions between corporations and organizations. The MOU encompasses the exploration of ways to enable financial services and the discussion of payment system development. Moreover, the MOU aims to enhance the innovation prospects in fintech and provide

a payment gateway service designed explicitly for stc within the business sector. stc's participation in the “Seamless Saudi Arabia 2023” conference and exhibition is a testament to its dedication to revolutionizing the fintech, e-commerce, retail, and payments landscape. The group is channeling its resources towards developing cutting-edge payment solutions that optimize digital payment platforms for individuals and the corporate sector across diverse industries. stc remains committed to empowering various sectors digitally and advancing progress by providing state-of-the-art solutions.



## etisalat by e& Globally Achieves Critical 5G mmWave Milestone

etisalat by e& today announced a global industry milestone with the successful pilot deployment of mmWave over 10 kilometres laying the foundation for commercial 5G private networks and accelerating digital transformation journey for customers and businesses. The implementation of 5G mmWave (FR2 only) network capability was steered as part of etisalat by e& vision to deliver state of art technologies to the society. This is considered as a global first 5G deployment on mmWave @ 26Ghz, FR2 only over 10

km with high speeds. The step aimed at addressing the demand of consumers and enterprises to have a solution following the highest standards of data security and digitalisation over mobile network that's also capable to deliver large amounts of data reliably and securely. The mmWave spectrum generally refers to above 24GHz, that can deliver extreme capacity, ultra-high throughput and ultra-low latency which has huge potential in multiple applications for consumers as well as enterprises. The solution demonstrates

the ability of 5G networks to enable uplink heavy video and real-time data transfer scenarios over a specific geographical area, effectively paving the way toward the digital transformation of industries operating over vast areas. Marwan Bin Shakar, SVP Access Network Development, etisalat by e& said: “This deployment is a commitment to unleashing the full potential of 5G network and pushing the boundaries to redefine the world of connectivity. This is a significant milestone for 5G mmWave, especially that the demand for data has

increased exponentially, and this plays a pivotal role in increasing network capacity. Our partnerships with technology leaders has also contributed to setting these benchmarks in the industry and bring advanced solutions to the country making sure we address customer digitalisation's

requirements and enabling quicker time to market." This achievement will support the use of 5G network for FWA subscribers who can enjoy fiber like user experience over wireless network and also accelerate the adoption of 5G private network technology in other sectors like

oil and gas, public safety, healthcare, manufacturing and more to have complete control over their user data with on-premise hosted MEC (Multi-access edge computing) and use their enterprise data and security policies to manage data delivered from a private 5G network.

## e& Joins the World Economic Forum's EDISON Alliance to Drive Digital Inclusion

e& announced it has joined the World Economic Forum's EDISON Alliance, reinforcing its commitment to making a positive impact on the world by prioritizing digital inclusion in achieving the United Nations (U.N.) Sustainable Development Goals. Launched in 2021, the EDISON Alliance is a global initiative that seeks to improve the lives of millions of people through affordable access to digital solutions in healthcare, finance, and education. e& has pledged to contribute significantly to this mission by striving to improve the lives of 30 million individuals through enhanced network access, financial services, and technology education by 2025. Hatem Dowidar, Group CEO of e&, has been appointed as one of the Champions of the Alliance, taking a prominent role in working alongside senior government officials and industry leaders to drive digital inclusion globally. Dowidar said: "Joining the EDISON Alliance underscores our commitment to an inclusive digital world where everyone can harness the benefits of the digital age. Central to our values is bridging the gap for those currently missing out on internet opportunities. By championing digital inclusion, we aim to uplift individuals and communities, subsequently fueling global economic growth." He added: "We are committed to supporting and aligning with the UAE's efforts in this endeavor. Our focus will be on addressing the critical challenges of affordability, accessibility, and usability, in collaboration with the public and private sectors, to ensure that the benefits of the digital age are accessible to all." The EDISON Alliance's ambitious goal is to provide affordable access to digital services to 1 billion people by 2025. This groundbreaking initiative is a collaboration between public and private sector leaders, working together to bridge the digital



divide and ensure that the benefits of the digital age are accessible to all. Claude Dyer, Acting Head, EDISON Alliance, World Economic Forum, said: "The EDISON Alliance is a unique multistakeholder platform aiming to demonstrate that reaching universal digital inclusion is achievable by inspiring organizations to positively impact one billion people by 2025, catalyzing new partnerships that would not have come about otherwise and facilitating peer-learning and best practice sharing." Harrison Lung, Group Chief Strategy Officer at e&, has been appointed to the Executive Network of the Alliance, where he will play a pivotal role in mobilizing joint efforts across all of e& operations and aligning priorities to advocate for increased digital investment. Lung said: "We recognize that the EDISON Alliance is already halfway to its goal of providing affordable access to digital services to one billion people. Joining the alliance represents a unique opportunity to make a lasting impact on global digital inclusion by supporting the achievement of its goals. I am honoured to be part of this esteemed group of change-makers, and I look forward to working together to

achieve our shared goals." By becoming a member of the alliance, e& will be the first technology player headquartered in MENA to join the global platform, following the UAE government's commitment to the EDISON Alliance as a partner in its Lighthouse Countries Network. The alliance demonstrates the UAE's dedication to digital wellbeing, aligning with its national goals in technology, education, healthcare, finance, future initiatives and enhancing digital reach, accessibility, literacy, and global impact. The EDISON Alliance brings together 50 CEOs, ministers, and 100 organizations from various sectors and industries to address the global digital divide. To date, the Alliance has positively impacted the lives of 454 million people through 250 initiatives in 90 countries, marking significant progress toward its 2025 target of improving 1 billion lives through digital inclusion. e& is dedicated to harnessing its expertise and resources to foster an inclusive digital landscape for all. It remains steadfast in propelling systemic transformations, underscoring universal digital inclusion as its aspiration and a tangible objective.

## e& Receives Tier 4 Certification from World Teleport Association

### World Teleport Association (WTA) bestows e& Teleports with Tier 4 Certification!



e& has been awarded Tier 4 certification for its Tawi al Saman teleport in Sharjah and Jebel Ali teleport in Dubai, under the World Teleport Association's (WTA) Teleport Certification Program. e& has joined an exclusive circle of teleports, becoming the first in the MENA region and the 12th globally to receive such a prestigious industry certification. The Teleport Certification Program entails a

meticulous evaluation process, and the 'Tier 4' certification signifies the highest level of excellence. The achievement underscores the success of e& in establishing an environment conducive to satellite operators and service providers, leveraging e&'s capabilities to deliver satellite solutions tailored to the MENA region and global markets. The certification also reinforces e&'s support

for Low Earth Orbit (LEO) and Medium Earth Orbit (MEO) satellite constellations. Nabil Baccouche, Group Chief Carrier & Wholesale Officer, e&, said: "The UAE today has a global standing in the space and satellite industry with a thriving ecosystem strengthening the nation's leadership in space technology. The Tier 4 certification from WTA reiterates our commitment towards contributing to building a robust satellite infrastructure. Thanks to our team's continuous dedication, innovation, and commitment, we consistently uphold the highest standards of quality, security, and efficiency standards." e& currently operates a network of advanced teleports that enjoy comprehensive access to a majority of satellites spanning the EMEA and Far East regions. The teleports also offer connectivity to international submarine cables, global VPN network, cloud network and SmartHub datacenters in UAE solidifying e&'s role as a critical link in the global telecommunications landscape. The Tier 4 certification is a testament to e&'s steadfast commitment to delivering impeccable network reliability and high-quality satellite services.

## etisalat by e& wins 'Employer of the Year' award at the GCC GOV HR Awards 2023

etisalat by e& today announced it has won the 'Employer of the Year' award at the GCC GOV HR Awards 2023, in recognition of its outstanding achievement and commitment to HR innovation and best practices to create an empowered workplace and make a positive impact in their lives. The 'Employer of the Year' award recognises the organisation that has created a highly satisfied, driven, determined, and integrated working environment by identifying the right talent and giving employees the opportunity to hone their skills, thereby building a strong workforce. Ali Al Mansoori, CHRO, etisalat by e&, said: "Achieving the recognition of being named 'Employer of the Year' is a moment of great pride for our entire team at etisalat by e&. Our unwavering dedication to HR innovation and best practices, along with our ability to positively impact our employees, has led to this remarkable achievement. It serves



as an inspiration to the HR community, showcasing the power of strategic planning, diversity, and effective human capital

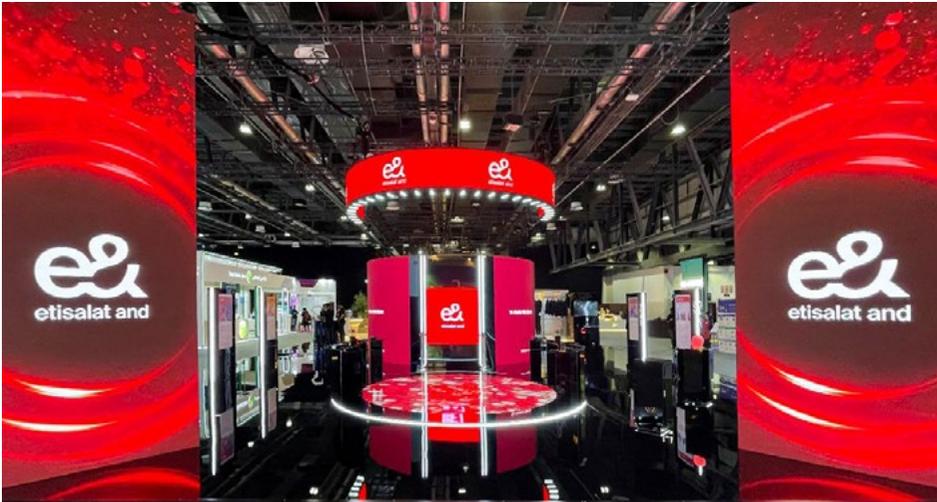
management. We are proud of our accomplishments and remain passionately committed to driving organisational team

effectiveness through HR excellence." The GCC GOV HR Awards, held in conjunction with the 11th Annual GOV HR Summit 2023,

is the region's most coveted recognition in the field of human resources. The award recognises organisations and individuals

across 20 specialist categories to honour organisations and individuals within the region who demonstrated HR excellence.

## Etisalat by e& to Invest Up to \$194.4mln in Egypt in 2024



Etisalat by e&. will invest at least EGP 6 billion into the Egyptian market in 2024, Asharq Business reported on September 7th, citing Chief Consumer Officer (CCO) Ahmed Yahia. During a press conference, Yahia expected the National Telecom Regulatory Authority (NTRA) to introduce new increases in telecom services before the end of this year. Yahia revealed that his company submitted a request to the NTRA to increase the prices of telecom and internet services by marginal rates that are not equivalent to inflation rates. In 2022, Etisalat Misr rebranded itself as Etisalat by e&, in line with the rebranding of e& Group in the Emirati market.



## Mobily Pay, HMS Join Forces to Enhance Digital Payment

Mobily and Pay Huawei Mobile Services (HMS) and, a trailblazing name in digital payment solutions, have unveiled a partnership at the Seamless KSA event vowing to revolutionize the mobile payment landscape for Huawei users in the region. At the heart of this partnership lies the integration of Mobily Pay into Huawei AppGallery, providing Huawei users across Saudi Arabia with seamless access to a diverse array of digital payment services. With this partnership, Huawei users now have the privilege of effortlessly utilizing Mobily Pay's extensive suite of digital payment solutions. This development is poised to simplify daily financial transactions, offering enhanced convenience, speed, and security to users in the KSA.

Seamless and secure Central to this partnership is HMS' unwavering commitment to delivering a seamless and secure user experience. Huawei has played a pivotal role by providing vital technical support to ensure the smooth integration of Mobily Pay into the AppGallery. This technical prowess

guarantees that users can engage with Mobily Pay's services without any glitches, setting new standards for digital payment convenience. Moreover, Huawei AppGallery will actively champion Mobily Pay, elevating its visibility and accessibility in the KSA market. This strategic move will open doors for a broader audience, enabling

even more Huawei users to experience the future of digital payments. The Managing Director of Huawei Consumer Business Group, Eco Development and Operation, KSA, William Hu, said: "This partnership exemplifies Huawei's commitment to delivering innovative solutions that improve the lives of our customers."



Hazem Alrashed, Vice President of Mobily Pay, said: "Our partnership with Huawei is a strategic move to bring Mobily Pay's services to a wider audience. We look forward to offering Huawei users in KSA a seamless and secure digital payment

experience." This groundbreaking partnership signifies the relentless pursuit of excellence in digital payment solutions. As HMS and Mobily Pay join forces, users across Saudi Arabia can eagerly anticipate an elevated mobile payment experience

that combines cutting-edge technology with unbeatable convenience. The future of digital payments has arrived, and it's powered by HMS and Mobily Pay ushering in a realm of exciting developments in the world of mobile finance.



## Omantel and Visit Oman Forge Strategic Partnership to Propel Digital Innovation in Oman's Tourism and Tech Sectors

VisitOman.om, Oman's digitally-native B2B inbound tourism portal built for the global travel industry, has signed a Memorandum of Understanding solidifying a strategic partnership with Omantel, the leading provider of integrated telecommunication services in the Sultanate of Oman. This alliance will significantly enhance the value proposition of Omantel's loyalty program, Makasib, providing customers with even more exciting opportunities to redeem their points for a variety of tourism and travel related experiences in Oman. Under this groundbreaking partnership, Visit Oman is set to launch a dedicated portal on its platform exclusively for Omantel loyalty customers where Omantel's Makasib points will be integrated into the Visit Oman booking platform, providing the opportunity for loyalty members to redeem live bookings with instant confirmation. This streamlined integration will facilitate a seamless redemption process for Makasib points, allowing loyalty customers to effortlessly use their earned points for an enriched array of Omani travel services and products curated by Visit Oman. The Visit Oman portal will feature unique rewards and special offers extended by local SMEs in the Oman tourism sector. This exciting initiative aims to foster growth and innovation among local businesses bolstering their development and promoting Oman's emerging tourism SME ecosystem on a national scale. Joint promotional activities will further enhance awareness and engagement surrounding the

utilization of Makasib points and further enhance the visibility of Oman's rich cultural offerings and experiences through these special offers to loyalty customers. Eng. Aladdin Baitfadhil, Chief Commercial Officer of Omantel, expressed about this partnership: "Our collaboration with Visit Oman marks a new era in customer rewards. It is an unprecedented fusion of technology and tourism, designed to reward our loyal customers and promote local tourism businesses. Our customers are at the heart of everything we do at Omantel, and we are committed to providing them with innovative solutions that enhance their experience. By integrating Makasib points into Visit Oman's platform, we are taking our loyalty program to new heights, adding greater value to each point and making rewards more accessible than ever." Omantel is keen to extend the benefits of this partnership to its large customer base through a variety of communication channels. The company will continue its dedicated efforts to advocate for the utilization of Makasib points, underscoring the value of customer rewards and loyalty in its journey towards a connected future. The partnership with Visit Oman reaffirms Omantel's commitment to continually enhance the value it offers to its customers and stakeholders and propel Oman further into the digital future. Adding to the excitement surrounding this partnership, Mr. Shabib Al Maamari, Managing Director of Visit Oman, expressed his delight in a statement: "We are truly proud to partner with Omantel, a company that shares our vision of facilitating unforgettable experiences. This integration of Makasib points into our platform signifies a major advancement in our service delivery, offering an innovative way for Omantel's loyal customers to experience the best of what Oman has to offer." He further stated, "By providing a dedicated platform for the redemption of rewards from local SMEs, we are not only creating unique opportunities for Omantel's customers but also bolstering the growth of our local economy. Our partnership with Omantel is a testament to our commitment to drive technological innovation within the tourism sector and support Oman's journey towards a digital future." The partnership underlines Visit Oman's ongoing commitment to drive digital innovation in Oman's tourism sector and brings Oman's rich tourism offerings to Omantel customers' fingertips through a shared vision of fostering domestic tourism and empowering local SMEs. Shk. Talal Al Mamari, Chief Executive Officer of Omantel, and Dr. Hashil Al Mahrouqi, Chief Executive Officer of Omran Group, were both present at the significant signing, highlighting the collective commitment of key stakeholders in this landmark collaboration.





## Zain Unveils Marketing Partnership with Red Bull Mobile

Continuing its journey to present the best service offerings to Kuwait's biggest family of subscribers, Zain today unveils its exciting new marketing partnership with Red Bull Mobile, bringing together Zain's unmatched and superior telecom experience together with the adventurous world of Red Bull. This collaboration is set to unlock an incredible world of unlimited opportunities, where Zain leverages on its leadership in telecom and digital service offerings on Kuwait's most powerful 5G network, along with the energy and appeal of Red Bull, the globally renowned brand that connects with young people. Zain now offers specially designed plans to meet the

needs of youth, while also giving them the chance to enjoy Red Bull's thrilling events and activities in Kuwait. Under this exciting partnership, Zain offers a number of flexible options for prepaid voice and internet services, including four ready-made plans designed to meet every customer's need, and a make-your-own plan option where customers can design their own unique plan. Additionally, customers can enjoy long-term perks like doubling and tripling benefits in the upcoming months and more. The new plans are available from any of Zain's digital and physical channels. This collaboration exceeds the traditional telecom experience, as it not only

brings all-new service offerings to Zain customers, but also gives them the chance to be a part of Red Bull's limitless world of exciting experiences. The two partners are set to host events and sports programs in Kuwait. Zain continues to stay ahead of the digital curve, offering the latest innovative technologies and services to customers. Representing Kuwait's biggest family of subscribers, the company is always committed to meeting customer expectations and serving their aspirations to provide the best and most unique digital lifestyle experiences.

## Zain Celebrates Summer Vibes with Customers At Al Khiran Mall

Zain recently held a special event at Al Khairan mall to celebrate the summer season, sharing vacation vibes with customers and mall visitors by organizing many exciting activities and interactive games. The event, through which Zain sought to connect with Kuwait's biggest family of subscribers, attracted large crowds of families and youth. Zain always stays active in the community

by organizing unique events and entertainment programs that coincide with the most celebrated seasons and vacations in Kuwait. Through these events, the company adds its own touch and reflects its brand values (Zain, A Wonderful World) to keep close to its customers and the wider community, bringing them the best opportunities to create beautiful memories. This particular event came in

collaboration with Wainkoum, the local creative house known for organizing out-of-the-box events and engaging activities that always gain popularity with the crowds. Zain has selected the newly opened Al Khiran mall for this event due to its unique location at the heart of Al Khiran area, where Kuwaitis usually spend their summer vacation near the waterfront, something that was well-aligned with the event's theme. The event featured many exciting activities, fun games, and memorable experiences that appealed to visitors of all ages, opening up the space for them to compete for the chance to win prizes from Zain. The company also distributed summer-themed giveaways, set up a photo booth, and held other fun activities that left a wonderful impression on everyone. Zain takes joy in interacting with its customers and being close to the community by supporting and organizing a wide variety of entertainment programs, projects, and more to enrich the local tourism scene. The company will always be keen on bringing joyful experiences to the Kuwaiti public to affirm its role as a leading national company.





## AT&T and the United Way of Metro Dallas Help Bridge Digital Divide

AT&T and the United Way of Metropolitan Dallas have long shared a common vision: to connect those we serve to greater possibilities. We know when we help connect people to technology, it can be a bridge to opportunity. That's why we're contributing another \$1 million over the next two years to the United Way of Metropolitan Dallas in support of the new Digital Bridges program focused on southern Dallas. This contribution adds to the \$1.2 million we previously made to support the distribution of 2,000 free laptops, digital literacy training and technology help for residents served by the nonprofit. This new contribution will help the United Way add more community navigators in the southern Dallas community. Thousands of families will receive a laptop and assistance from a trained navigator who can provide digital literacy training to help with important tasks like enrolling in health care and the Affordable Connectivity Program, which can cover the cost of internet service for those eligible. We're joined in this effort by major contributions from Texas Instruments Foundation, the Richard and Mary Templeton Foundation and the Eugene McDermott Foundation. Together, we aim to deliver the benefits of connectivity in southern Dallas to those on the wrong side of the digital divide. Un-

fortunately, those who lack access to the internet are automatically excluded from many aspects of daily life – including access to job openings, online learning and education resources, digital health care and more. Across the nation, we are becoming increasingly reliant on digital technology. In fact, the National Skills Coalition reports that 92% of jobs in the U.S. require digital skills. The stakes have never been higher. According to research:

- 27% of adults with household incomes of \$30,000 or less lack home broadband
- One-third of Americans lack basic digital skills; Black and Hispanic workers are overrepresented in this group.

Our goal is to change these numbers, but it takes collaboration to move the needle. Combining our digital divide efforts with the United Way of Metropolitan Dallas and other contributors means greater impact. And working with credible nonprofit organizations in the southern Dallas community means effective reach. We'll be working with community organizations, like the Puede Network, Jubilee Park and Community Center, libraries, and dozens of others to connect more of the underserved. Adan Gonzalez, the founder of Puede Network, knows all too well what it's like to live in the digital divide. He was raised in the South

Oak Cliff neighborhood of Dallas and recalls applying for college using a borrowed laptop and Wi-Fi from a nearby restaurant. "I don't want another kid to have to sit on the curb of McDonald's to access the internet," Gonzalez says. "The Digital Bridges funding will give my organization the opportunity to reimagine what the learning space at our center will look like. Equipping kids with technology to explore and grow could provide endless opportunities." All told, the new Digital Bridges collaboration will touch more than 30,000 lives in the Dallas community by:

- Providing more than 4,200 computers to those in need.
- Creating computer labs in community-based organizations.
- Offering digital literacy training to nearly 3,000 individuals.

Helping more than 15,000 residents enroll in the Affordable Connectivity Program. We remain vigilant in tackling the digital divide in Dallas and nationwide through our AT&T Connected Learning® initiative, which helps people get computers and connectivity, gain skills to use the internet effectively, and embrace the internet so they can reap its vast benefits. This is how we build the bridge to possibilities. United is how we will get there.



## China Mobile Teams Up with Huawei to Deploy the First FTTR-B Network on Mount Everest

Recently, China Mobile Communications Corporation Co., Ltd. (China Mobile) and Huawei have successfully deployed an FTTR-B network for the tourist base camp and hotel on Mount Everest [Tibetan name: Mount Qomolangma]. Based on Huawei FTTR-B (Fiber-to-the-Room Business) solution, China Mobile provides ultra-gigabit premium Wi-Fi services for staff and tourists at the top of the world, meeting their daily communication and business requirements.

### China Mobile teams up with Huawei to deploy FTTR-B network

At the management office of the tourist camp 5,200 meters above sea level, staff need to check environmental protection devices, send back high-resolution photos and videos, and log to the Mount Everest Administration Bureau every day. Due to poor network conditions, problems such as frame freezing, slow video upload, and document sending failures used to occur frequently. The high-speed FTTR-B network that has been successfully

deployed fundamentally changes network conditions, allowing all staff in the tourist base camp and tourists in nearby rest areas to enjoy premium Wi-Fi services. In addition, the FTTR-B solution has been deployed in a tourist hotel in a nearby town 4,200 meters above sea level. In the past, network problems such as frame freezing, no network connection, and slow response of the check-in system would occur from time to time, affecting guests' check-in experience. Since the FTTR-B solution is deployed, up to 300 hotel guests can



access high-speed Internet at the same time, and hotel reception staff can do their job much more smoothly.

#### Huawei FTTR-B device

The FTTR-B solution was jointly launched by China Mobile and Huawei to provide ultra-gigabit all-optical networking for small- and medium-sized enterprises (SMEs) in China. The solution is widely used in hotels and shops. Huawei FTTR-B devices feature

flexible triple-mode antennas and can be installed on ceilings or walls to provide full Wi-Fi coverage in indoor areas, enabling users to enjoy premium network experience anywhere. The solution uses power over fiber (PoF) cables to transmit signals and supply power to devices at the same time, resolving problems of difficult power acquisition. In addition, the WeFTTR app provides functions such as network topology management, one-click network optimization, and self-service network configuration for IT staff in management offices and hotels, reducing O&M workload. O&M engineers of China Mobile can also use the app to remotely locate network problems, improving the O&M efficiency. In 2024, China Mobile will work with Huawei to extend the FTTR-B solution to the climber base camp. This will enable climbers to enjoy gigabit network services as they get ready to reach the top of the world. As a leading global ICT infrastructure provider, Huawei has carried out extensive cooperation with operators such as China Mobile and helped many SMEs to realize digital transformation through innovative solutions such as FTTR-B. In the future, Huawei will continue to cooperate with China Mobile to build gigabit optical networks using innovative technologies.



## Cisco and Nutanix Forge Global Strategic Partnership to Simplify Hybrid multicloud and Fuel Business Transformation

Cisco, the leader in enterprise networking and security, and Nutanix, Inc., a leader in hybrid multicloud computing, announced a global strategic partnership to accelerate hybrid multicloud deployments by offering the industry's most complete hyperconverged solution for IT modernization and business transformation. IT organizations continue to face significant operational hurdles and urgent sustainability and security concerns as a result of increasing multicloud complexity. This new partnership answers these challenges by simplifying and accelerating the delivery of infrastructure and applications, at a global scale, through best-in-class cloud operating models, unparalleled flexibility, and automated resiliency with industry-leading customer support. "Customers are asking for solutions that are simple, sustainable, and future-ready," said Jeremy Foster, senior vice president and general manager, Cisco Compute. "This partnership answers with a complete solution spanning virtual compute, networking and storage across customer data centers and public clouds. By combining Cisco's award-winning SaaS-managed compute portfolio with Nutanix's market-proven cloud platform software, we can help customers develop a balanced approach to power modern workloads on-prem and in the cloud." "As organizations look to keep up with the pace of innovation, they need an integrated hardware and software platform to support application deployment anywhere," said Tarkan Maner, chief commercial officer at Nutanix. "This partnership will deliver an expanded market opportunity for both organizations as they tackle the challenges of standardizing, simplifying, and securing environments across the data center, in public cloud and the edge." The new offering integrates Cisco's

SaaS-managed compute and networking infrastructure (Cisco Unified Computing System with Cisco Intersight) with the Nutanix Cloud Platform (Nutanix Cloud Infrastructure, Nutanix Cloud Manager, Nutanix Unified Storage, and Nutanix Desktop Services) and will be sold by Cisco using its extensive go-to-market reach. Customers will benefit from a fully integrated and validated solution that is sold, built, managed and supported holistically for a seamless end-to-end experience. The solution will offer flexible deployment options with support for Cisco UCS rack and blade servers, including initial support for C-Series Servers and planned, future support for UCS X-Series, winner of the 2023 SEAL Sustainable Product of the Year Award and CRN's 2023 Tech Innovator Award. The new offering will integrate advanced Cisco servers (UCS), networking and security (ACI), and management (UCS Manager, Intersight) with the Nutanix Cloud Platform software. The Nutanix Cloud Platform provides a consistent cloud operating model with a single platform for running applications and data across data centers, edges and public clouds. To best support application deployments, from mission critical workloads to AI-driven innovation, performance and capacity scale linearly, resilience is delivered from the ground up with self-healing nodes, and persistent storage is natively integrated. Following today's announcement, Cisco and Nutanix will enable their global sales teams and partners worldwide to offer an exciting new solution combining best-in-class technologies and collaborative go-to-market support, driven by the Cisco team. Solution availability is expected in the next 90 days.

## Link Net Taps Cisco and Qwilt to Boost Capacity and Improve Streaming Services



Indonesian fixed broadband and IPTV provider Link Net (First Media) is partnering Cisco and cloud firm Qwilt to increase its network capacity and improve streaming services in over three million homes via a new content delivery network (CDN) solution. Under the tie-up, Qwilt is installing its Open Caching-based architecture into the ISP's network edge, initially in 27 cities across Indonesia, allowing for increased data volumes across its network. Ultimately the plan is to deploy the world's 'largest federated CDN'.



## Eutelsat-OneWeb Merger Receives Regulatory Clearance

Having received 'all relevant regulatory clearances' for its proposed combination with OneWeb, Eutelsat Communications has convened an Ordinary and Extraordinary General Meeting of its shareholders to be held on 28 September 2023. The enlarged entity has also unveiled its new executive team, which will bring together senior leaders of both companies, under the leadership of CEO Eva Berneke. The combination of Eutelsat and OneWeb will create a leading global player in satellite connectivity, the two parties have stated. The French-backed Eutelsat and UK-based OneWeb signed a Memorandum of Understanding (MoU) to merge in an all-share transaction in July this year. The transaction will be structured

as an exchange of OneWeb shares by its shareholders (other than Eutelsat, which acquired an initial equity stake in April 2021) with new shares issued by Eutelsat. As such, at closing Eutelsat will own 100%

of OneWeb (excluding the 'Special Share' held by the UK government). OneWeb shareholders will receive 230 million newly issued Eutelsat shares representing 50% of the enlarged share capital.



## Huawei, Xiaomi Forge Cross-Licensing Deal

Huawei reached a settlement with Xiaomi over a patent infringement dispute, with the pair concluding a global cross-licensing deal covering multiple communications technologies including 5G. In a joint statement, Xiaomi's GM of corporate

business development and IP strategy Ran Xu noted the agreement shows mutual respect and acknowledgment of their IP. Huawei's head of intellectual property department Alan Fan stated the deal showed industry recognition for

its "contributions to communications standards", adding it "will help us enhance our investment in researching future mobile communications technologies". The companies noted they started actively negotiating a licensing deal after

Huawei filed an infringement suit in China covering four patents. They stated they used a variety of mediation mechanisms to assist in reaching an agreement. Huawei forged a long-term licensing deal

with Ericsson last month and previously agreed arrangements with Oppo, its largest Chinese licensee by the number of patents held and total devices sold. The Chinese equipment vendor claims to

have spent CNY845 billion (\$116 billion) on R&D over the past decade and to have topped the rankings for submissions to the European Patent Office in 2022, with 4,505 applications.

## HUAWEI CLOUD Summit Saudi Arabia Brings Together Industry Titans to Further the Digital Transformation Journey

His Excellency the Deputy Minister of Communications and Information Technology, Engineer Haitham bin Abdul Rahman Al-Ohali, opened the HUAWEI CLOUD Saudi Summit 2023. Sponsored by the Ministry of Communications and Information Technology (MCIT) and organized by Huawei, the event aims to enhance digital transformation in line with the Kingdom's ambitious Vision 2030. The event was attended by Steven Yi, Senior Vice President of Huawei and President of Huawei Middle East and Central Asia, several senior officials from MCIT and leaders of the local and regional technology and business sectors. The launch of the Summit aligns with the working framework of the Ministry and Huawei's efforts to support digitalization across the Kingdom and the nation's strategy and vision. During the opening ceremony of the HUAWEI CLOUD Saudi Summit 2023, Huawei announced the launch of the Huawei Cloud Riyadh Region, which will contribute to the emergence of a new era of digital-led economic growth and prosperity. This launch is in line with HUAWEI CLOUD's plans to invest heavily in cloud infrastructure in Saudi Arabia, which was announced during the second edition of LEAP 2023. H.E. Eng. Haitham bin Abdul Rahman Al-Ohali, Vice Minister at the Ministry of Communications and Information Technology (MCIT) in Saudi Arabia, shared his perspective on this monumental achievement: "Huawei is a proud partner in our country's technological progress having worked with the Ministry, service providers, enterprises and universities in various collective efforts towards digital transformation. We look forward to the transformative impact the HUAWEI CLOUD Riyadh Region will have on our digital ecosystem, creating new avenues for innovation and growth."



Steven Yi, Senior Vice President of Huawei and President of Huawei Middle East and Central Asia, stated: "We are thrilled to witness the realization of our vision for HUAWEI CLOUD in Saudi Arabia. This summit reaffirms our long-standing commitment of over two decades to the Kingdom and our determination to empower enterprises with cutting-edge technology for a digitally prosperous future. Through collaborative partnerships, we aim to harness the power of cloud computing and AI to reshape industries and drive economic progress." Themed 'Advance Intelligence for Saudi Arabia,' the summit highlighted HUAWEI CLOUD's commitment to the Kingdom's digital future. The event provided an ideal platform for exchanging knowledge and building relationships and cooperation, encouraging national and international companies to share success stories, best practices, and insights into the digital transformation process. At the HUAWEI CLOUD Summit Saudi Arabia 2023, the company also released the 'Saudi Arabia Go Cloud Go Global' plan to connect Chinese and Saudi enterprises

internationally, fostering growth and innovation. The company will leverage its strong experience of working in more than 170 countries and regions, various industries, advanced technologies, and solutions to help Chinese enterprises enter Saudi Arabia and enhance partnerships with local stakeholders. At the event, the company also announced that HUAWEI CLOUD will train 500,000 developers in Saudi Arabia in the next five years. It will also build joint solutions with 1,000 local partners and launch the HUAWEI CLOUD Entrepreneurship Program to help 2,000 startups grow. The company revealed that HUAWEI CLOUD will utilize a number of industry-leading technologies to advance Intelligence for Saudi Arabia, including the Pangu 3.0 model, which addresses AI adoption challenges, leveraging industry insights to enhance AI capabilities across sectors like finance, government, manufacturing, and more. Pangu 3.0 AI model will usher in a new era of innovation in the Kingdom while accelerating economic diversification.

## Huawei Releases Data Center 2030, Leading Innovation and Development of New Data Centers

The Data Center 2030 report was released by Huawei at HUAWEI CONNECT 2023. Aiming to guide the innovative development of the industry, the report shares insights into the future of data centers, defines key features involved, and proposes a new reference architecture. With the intelligent era around the corner, computing power has become the top requirement and data centers the key infrastructure. Over the past three years, Huawei communicated with more than a hundred scholars, customers, partners, and research institutes regarding the future of data centers, and has held over 50 workshops. The collective wisdom of industry experts both in and outside Huawei on the matter was then condensed into the report. Michael Ma, Vice President of Huawei and President of the ICT Product Portfolio Mgmt & Solutions Dept, released the Data Center 2030 report on behalf of Huawei and delivered a keynote speech entitled "Exploring the Future of Data Centers to Lead the Intelligent Era". Mr. Ma pointed out that the computing power requirements are expected to grow so fast they will outpace even Moore's Law while at the same time the growth of computing power is subject to limited resources. To cope with this contradiction, continuous innovation to improve efficiency will become the core direction of data centers in the future. The industry will embrace a new round of transformation. Michael Ma, Vice President of Huawei and President of the ICT Product Portfolio Mgmt & Solutions Dept, released Data

Center 2030. With a focus on the core conflict between computing power requirements and resource constraints, Data Center 2030 describes five future scenarios that will affect data center development over the next decade, and proposes an innovative integration of energy, computing, transmission, data, and operation efficiency. The report defines for the first time in the industry six key technical features of future data centers, and systematically explains the development challenges as well as breakthrough directions for cloud service, computing, storage, network, and energy technologies involved in data centers. Data Center 2030 also proposes a reference architecture for new data centers and quantitatively predicts the future prospects

of data centers based on 22 indicators and forecast data. Many prominent guests were invited to deliver speeches at the event. Joe Weinman, a digital strategist, He Baohong, director of the Cloud Computing and Big Data Research Institute of the China Academy of Information and Communications Technology (CAICT), and Hui Tao, director of Huawei ICT Strategy & Planning and Business Development Dept, all shared their ideas and practices with reference to the future of data centers. Huawei looks forward to working with customers and partners around the world to promote the high-quality development of global data center infrastructure and contribute to the intelligent transformation across industries.



## Nokia Supports Globe Telecom's 4G/5G Expansion with IPAA+ Rollout

In a press release, Nokia confirmed it is deploying its latest generation of Interleaved Passive Active Antennas (IPAA+) to support Globe Telecom's efforts to expand its 4G and 5G coverage across the southern islands of the Philippines. The Finnish vendor notes that IPAA+ is a modular design and supports all 5G frequency bands in a single compact

antenna including the 2.6GHz spectrum band. Further, the platform can also support other bands, which it claims means Globe's investments 'are protected' allowing the MNO to accelerate and simplify its 4G/5G rollouts going forward. Nokia's new IPAA+ is similar in size to a standard multiband antenna, making it 'easier and faster for service providers to deploy their 5G

networks through just a simple antenna swap'. The two companies successfully trialed a Globe Telecom-specific variant of the IPAA+ in Tantaran, South Cotabato in the island of Mindanao, making Globe the first operator in the world to successfully test the 2.6GHz IPAA+ variant, the vendor said.

## Nokia Selected as Rural Broadband PON Solution for Mediacom Communications

Nokia announced that Mediacom, the 5th largest cable operator in the United States, is building PON networks to provide multi-gigabit broadband service to rural, underserved communities. Fueled partly by state and federal grant projects, Mediacom will leverage Nokia's XGS-PON systems and equipment, to support new geographical serving areas. Mediacom, which offers broadband to 3.3 million homes and businesses in 22 states, will deploy Nokia's chassis-based Optical Line Terminals (OLTs) and node-based OLTs. The chassis-based solution will be used in small, non-conditioned cabinets, while the node-based will be installed on strands or utility poles and capable of sustaining harsh outside plant environments. J.R. Walden, Senior Vice President Technology and CTO at Mediacom said: "Nokia is supplying Mediacom systems that deliver up to 25G PON today. Their platforms effectively support our services while allowing for future growth and expansion that will help Mediacom remain both a market and industry leader in advanced, high performance data services." David Eckard,



VP of Broadband Partners at Nokia, said: "The United States is committed to ensuring that all Americans have access to the highest quality broadband services. Mediacom's ambition to connect Rural America is critical to help bridge the digital divide in our communities, and Nokia is proud to have been selected as its partner. Through our onshoring of critical 10G fiber solutions and optical modules to the United States, Nokia will be ready to support operators seeking funding, and to connect more people, sooner. Jaimie Lenderman,

Research Manager & Principal Analyst at Omdia, said: "Cable operators are increasingly deploying FTTH for both greenfield and overbuild with next-generation PON technologies, such as XGS-PON and 25G-PON, because of their inherent energy efficiency and almost unlimited scalability, underscoring the MSO green networking strategy." According to Dell'Oro, Nokia is the largest provider of XGS-PON globally. In addition, seven out of ten homes in the USA with fiber are served using Nokia equipment.

## Nokia to Build Innovation Lab in Dubai

Nokia unveiled plans to open an innovation lab in the UAE as part of wider ambitions to deepen its cloud RAN push in the Middle East and Africa while boosting the adoption of AI and other technologies across the region. The Finnish vendor stated the

laboratory will complement existing collaborations with Dell Technologies and Hewlett Packard Enterprise (HPE) to develop new innovations around cloud RAN and strengthen its own portfolio, pointing to its anyRAN software which is compatible

with any cloud server or hardware. There is a further plan to combine Nokia's software with Dell's cloud platform to improve the performance of open network architectures, as well as to deploy HPE's hardware for Nokia's accelerator cards. Tibor Fabry-Asztalos, SVP for product development engineering and telecom system business at Dell said the partnership will aid "network operators digitally transform and quickly bring innovative and revenue-generating solutions to the market". Nokia added it will work with other market-leading hyperscalers to encourage the "flexibility of choice of technology suppliers and operating environments". The Dubai facility will also target new use cases around smart and connected industry, and Nokia stated its MX Industrial Edge platform can aid local enterprises accelerate the shift to Industry 4.0. Network optimization through the use of AI and machine learning will also be a key focus at the laboratory.



## Nokia Rolls Out Interleaved Passive Active Antennas for Globe Telecom Across the Philippines

Nokia announced that it is deploying its state-of-the-art, modular Interleaved Passive Active Antenna (IPAA+) for Globe Telecom, Inc, across the southern islands of the Philippines. The move will help to accelerate 5G deployment in the region. Nokia's advanced IPAA+, has a light, modular design and supports all 5G frequency bands in a single compact antenna including the 2.6 GHz spectrum band. Nokia's IPAA+ inherently has the capability to support other bands, which means investments are protected. They will enable Globe Telecom to accelerate and simplify 4G/5G rollouts, while also delivering higher level of network efficiency

and performance, as well as faster return on investment. Service providers face the challenge of finding additional space on towers and rooftops to add 5G antennas. Nokia's IPAA+ accelerates the deployment of 5G by addressing this physical issue. Nokia's new IPAA+ is the size and weight of a standard multiband antenna and makes it easier and faster for service providers to deploy their 5G networks through just a simple antenna swap. Combining the 4G passive and 5G active antennas together into a compact solution can also help lower site rental costs and make the acquisition of sites faster. Nokia and Globe's engineering team

also successfully trialed a Globe Telecom-specific variant of the IPAA+ in the field. The field test was carried out in Tantaran, South Cotabato in the island of Mindanao, making Globe Telecom the first operator in the world to successfully test the 2.6 GHz IPAA+ variant. J Jeciel Nuyda, President at Nokia Shanghai Bell Philippines, said: "We are delighted to partner with Globe Telecom on this deal that will see our state-of-the-art IPAA+ products being deployed in the Philippines. These products are lighter, more modular and cover all sub-6GHz 5G frequency bands. We look forward to collaborating closely with Globe on this important deployment."



## Oman Broadband's CEO: Adhering to ISO Standards is a Transformative Step Towards Long-Term Success

Oman Broadband company has obtained international recognition from International Organization For Standardization by receiving three ISO certifications, through which it approves the accomplishment of a comprehensive management system. The QHSE team in the Division of Enterprise Performance made that achievement, and it enhances the core values of the institution represented in reliability, efficiency, cooperation, responsibility, and innovation. The company has received ISO 9001:2015

Quality Management System Certification, ISO 45001:2018 Occupational Health and Safety, and ISO 14001:2015 Environmental Management System. This international recognition reflects the commitment of Oman Broadband to international standards and demonstrates its excellence, sustainability, and stakeholder confidence. Obtaining these prestigious certifications accentuates the company's firm commitment to provide outstanding service and maintaining a safe, healthy,

and sustainable work environment, and is also another notable achievement that boosts Oman Broadband's position in ITHCA Group and the ICT sector.

### NEW CERTIFICATION

Obtaining ISO 9001:2015 Quality Management System Certification is an acknowledgment to the company's commitment to a customer-centered, quality assurance and continuous improvement approach. This certification is also evidence of the continuous pursuit of efficiency and reliability in all business operations. Attaining ISO 45001:2018 Occupational Health and Safety is a global standard for health management systems and occupational safety, demonstrating the company's commitment to providing a safer and healthier work environment. It also emphasizes responsibility towards employees, stakeholders and society overall. ISO 14001:2015 certification for the environmental management system, confirms the dedication to managing environmental responsibilities effectively, in line with the company's commitment to sustainability. In this respect, Eng. Sultan bin Ahmed Al Wahaibi, CEO of Oman Broadband, assures the numerous



implications of these achievements, as it enhances the company's reputation and prioritizes quality, health, safety, and environment. Such achievements can distinguish us in a vital and competitive sector and would lead to improving operational efficiency, through the alignment of our operation with ISO standards, Al Wahaibi added. He noted that the company can also identify areas of improvement and implement strategies to reduce costs and enhance productivity. The operational efficiency would probably enhance customer satisfaction and loyalty, as these certifications will guarantee adherence to the sector's legal requirements and regulations. Al Wahaibi mentioned that the certifications not only reduce the risks of legal cases, but also

illustrate to stakeholders that we are a trustworthy and reliable partner.

#### **Transformative Journey**

Al Wahaibi said that adherence to ISO standards is not just a mere operational change, but a transformative step towards long-term success as well. By incorporating these standards into our daily work, we ensure that every part of our organization, from administrators to frontline staff, works in line with internationally recognized best practices. This is perfectly consistent with our core values: reliability; where we continuously provide excellent service, efficiency; whereby we are constantly improving our operations, cooperation as we work together to achieve a common perspective, responsibility; since we are prioritizing

health, safety, environmental sustainability, and innovation as we unceasingly seek new methods to reinforce quality and performance, Al Wahaibi illustrated.

#### **Looking Ahead**

Oman Broadband CEO added that obtaining ISO certifications is a milestone, but it is not our final destination, and it marks the beginning of the journey of continuous improvement with ongoing audits and evaluations, to ensure that we are at the forefront of international standards. "We look forward to facing the challenges and embracing the opportunities offered by this journey with more than 12 certified auditors of integrated management systems who have made an active and critical contribution to this achievement", the CEO said.



## **Mexico's CFE TEIT Taps SES's Mobile Backhaul Service via SES-17 to Boost Digital Inclusion**

Expanding on a partnership committed to close the connectivity divide across Mexico, CFE Telecomunicaciones e Internet para Todos (CFE TEIT) and SES today announced the delivery of voice and data services enabled by SES's Mobile Backhaul solution to 400 underserved, remote villages and communities across the country via the very high throughput SES-17 Ka-band satellite. With the common goal of supporting the efforts of the Mexican Government to bring greater connectivity to remote, hard-to-reach locations, CFE TEIT is leveraging SES's turnkey mobile backhaul service to deliver 2.2 Gbps to hundreds of thousands of residents living across the 400 sites.

The mobile backhaul solution will enable rural communities to access 4G network services for the first time, paving the way for mobile commerce and economic growth in the years to come. SES's Mobile Backhaul service via SES-17 and other HTS satellites is playing an integral role in delivering 4G and 5G services to users across the Americas. Over the next four years in both rural and urban areas across Latin America, an estimated 57 million in Latin America will access 4G or 5G for the very first time. "As technology continues to advance, the demand for increased connectivity via both broadband and mobile networks is growing exponentially. At SES we are committed to supporting

our partners and making our experience and technology solutions available to CFE TEIT to achieve greater digital inclusion throughout Mexico. SES-17's Mobile Backhaul service will connect 400 underserved sites across the country and enabled CFE TEIT to deliver 4G services for the first time among the communities," explained Omar Trujillo, Vice President of Enterprise Americas at SES. "We are thrilled to once again support Mexico's efforts to bring reliable broadband services at everyone's fingertips. It is very impressive to see the tremendous impact of the government's innovative approach to digital inclusion where CFE TEIT directly brings 4G to rural areas in large scale and in a short timeframe." Earlier this year, SES and CFE TEIT announced plans in March to deploy more than 1,100 broadband hotspots, as part of Mexico's federal government initiative called Internet para todos (Internet for Everyone), which delivers free Internet access in thousands of public areas via SES-17. The multi-year collaboration will expand the federal agency's reach into unconnected and underserved communities, where high-speed broadband and mobile 4G network access will drive new exciting opp



## SES, Telemor Expand Partnership to Deliver Enhanced Connectivity Services

SES has announced the renewal of its eight-year partnership with Viettel Timor-Leste (operating as Telemor) for the delivery of upgraded mobile connectivity to residents and businesses in the country. Under the new agreement, Telemor will increase its service uptake substantially on SES's O3b constellation operating in

medium earth orbit (MEO). Partners since 2015, Telemor has been leveraging O3b's reliable high throughput and low latency to deliver high quality mobile data services to its subscribers in Timor-Leste. Up to 1.4 million consumers and businesses will be able to seamlessly experience data-intensive video applications and voice

communications in both urban areas and remote villages. 'The expanded partnership marks a major milestone in our eight-year partnership with Telemor to deliver a game-changing internet experience to businesses and residents,' said Harsh Verma, Vice President, Enterprise & Cloud in Asia at SES,' adding: 'As Timor-Leste looks to accelerate digital inclusion and offer adequate speed and qualitative connectivity, we at SES are thrilled to see how much high-performance, low-latency, satellite-enabled connectivity will bring online services closer to the East Timorese population.' Brian Tran Van Bang, CEO at Viettel Timor-Leste, added: 'We are glad to continue partnering with SES to make reliable, high speed connectivity a reality, especially for remote locations where connectivity opens up new digitally-enabled economic opportunities that would otherwise be inaccessible.'



## stc Sponsors the 'Future Leaders Program' in Collaboration with the Youth Public Authority

Kuwait Telecommunications Company – stc, a world-class digital leader providing innovative services and platforms to customers, enabling the digital transformation in Kuwait, announced its sponsorship of the "Future Leaders Program" organized by the Youth Public Authority. stc's sponsorship of the program falls under the Company's 'upgrade' initiative which aims to contribute towards empowering the youth and supporting local educational initiatives. The 'Future Leaders Program' aims to inspire young participants between the ages of 11-17 to instill a set of professional skills that would later assist them in excelling within their chosen career paths. It has been designed to educate Kuwaiti students in the 12th grade of both public and private schools who meet the Ministry of Higher Education's scholarship criteria. The program is the first-of-its-kind in Kuwait, as it seeks to prepare the students to

qualify for various positions, therefore enhancing the employment rate of young nationals. Those enrolled in the program were exposed to methods on developing positive behavioral habits, effective planning, building leadership skills, and fostering charismatic qualities. Sessions held under the program were organized at various youth centers throughout Kuwait, where stc distributed gifts to all participants. Participants received several certificates after each stage, including a training course completion certificate, a field project accomplishment certificate, a certificate of membership in the "Future Leaders Program", and "Train the Trainer" certification. The organizing committee also presented commendation plaques for distinguished projects. As the main sponsor, stc played a pivotal role in the program. Anfal Al-Kandari, Public Relations and Social Media Specialist at stc, contributed by delivering

a presentation on the significance of community engagement through the company's official communication channels. stc's participation in the program is in line with its commitment to education, a key pillar of its extensive corporate social responsibility (CSR) program. As part of its 'upgrade' initiative, stc focuses on supporting the youth within the community to enable a brighter and more prosperous future. Through several initiatives coordinated under the "upgrade" program, stc actively works to support the local education sector. Some of its initiatives include forging strategic partnerships with various government and private organizations, such as "dawrat," to facilitate education and deliver valuable online content to the community. stc also launched the "inspireU" business accelerator in Kuwait, the first of its kind, which aims to empower and expedite the growth of small and medium-sized

enterprises and startups. Moreover, the Company's active participation in numerous job fairs in collaboration with various Kuwaiti universities demonstrates its unwavering commitment to attracting young Kuwaiti talent. Commenting on the sponsorship, Danah AlJasem, General Manager of Corporate Communications at stc, said, "At stc, we firmly believe in the potential of the youth to shape a better future for Kuwait. We believe that it is essential to hold programs that can enhance the qualifications of members within our community and breed future leaders. By sponsoring the 'Future Leaders Program', we are providing young minds with the necessary tools and guidance to unlock their potential and drive change in their lives and the community. As a

Company deeply rooted in our community, stc is dedicated to creating positive change and fostering the talents of the next generation." AlJasem added, "We firmly believe that businesses and institutions have a responsibility to give back to the community they serve. In this regard, and on behalf of stc, I would like to thank the Youth Public Authority and all those who played a role in bringing this unique program to light. stc strives to become an active agent of positive change in Kuwait, empowering the youth and supporting their ambitions for a brighter future." Waleed Al-Ansari, Director of the Volunteer Work Department at the Kuwait Youth Public Authority, said, "We are delighted to have stc as a key sponsor for the 'Future Leaders Program.' Their commitment to

empowering the youth aligns perfectly with our vision for creating a thriving and dynamic future for Kuwait. Together, we aim to nurture a generation of confident, skilled, and socially responsible leaders. AlAnsari added, "Our mission is to empower and uplift the youth of Kuwait, enabling them to thrive in every aspect of life. We are dedicated to creating opportunities, fostering talents, and supporting the aspirations of our young generation. Through strategic partnerships and impactful programs, we strive to shape a brighter future by developing and nurturing a generation of youth leaders who are the backbone of the economy. Together, we are building a dynamic community that embraces the potential of our youth and invests in their success.



## stc Bahrain Hits 10Gbps Speeds During First Live 5.5G Trials

stc Bahrain has announced the successful completion of 5G-Advanced (5.5G) trials in the MENA region. The live demonstration was showcased during the 31st Arab Spectrum Management Group (ASMG), utilizing the upper 6GHz frequency range (400MHz bandwidth) for 5G-Advanced, made available through the Telecom Regulatory Authority's (TRA's) innovation license. The operator claims a data transfer speed of over 10Gbps was achieved during

the initial phase of testing. Commenting on the development, stc Bahrain CEO Nezar Banabeela said: 'We are excited with what we have witnessed so far and the potential it has to complement existing 5G networks with new data transfer speeds, low latency, and network reliability. This is just an initial breakthrough as we continue to research and test similar technologies and set new industry benchmarks.' stc Bahrain launched 5G broadband fixed

wireless access (FWA) services in selected areas in June 2019 and introduced mobile data plans for post-paid and pre-paid customers the following month, supporting speeds of up to 1Gbps. The network's footprint was extended to 50% of Bahrain's territory by January 2020, with maximum data transfer speeds increased to 1.2Gbps, and now covers around 100% of the Kingdom.

**TECH**  
**mahindra**

## Tech Mahindra Launches Generative AI Powered Ops amplifAler, a Digital Assistant for IT support Engineers

Tech Mahindra, a leading provider of digital transformation, consulting, and business re-engineering services and solutions, announced the launch of 'Ops amplifAler' solution under TechM amplifAler-suit of AI offerings and solutions. The solution will

amplify the productivity of support engineers by providing a single pane integrated view with all the contextual information and tools to resolve issues. It will also enable team collaboration and generative AI assistance capabilities and make the processes

future-proofed in a responsible manner. Tech Mahindra's Ops amplifAler solution integrates with existing ITOps tools to collect the contextual information related to an IT ticket/alert and uses generative AI to analyze the collected data. It further identifies the probable root cause, diagnose, recommend remediation actions, and generate the corresponding automation scripts. The solution comes with an enterprise automation catalogue that enables the reuse of automation artefacts like scripts or workflows across the enterprise. Hasit Trivedi, CTO – Digital Services and Global Head - AI, Tech Mahindra, says, "Enterprises have a system for every team such as the HRMS for HR, FMS for Finance, CRM for sales, etc. But there is no single system focused on IT support engineers. While there are multiple ITOps tools and each of them has core strengths, but they lack completeness and hence, support engineers must log into multiple tools and toggle between them numerous times to analyze and resolve the tickets. Enterprises are looking for technology that addresses modern workplace issues quickly to accelerate value and bring efficiency. With our know-how of customer context and in-depth expertise in AI technology, we developed Ops amplifAler to accelerate the automation of complex IT processes. Our Ops amplifAler solution is designed by putting the support engineer at the center. It enables them to analyze and resolve issues faster with generative AI assistance." In addition, Ops amplifAler enables collaboration between team members and a generative AI chatbot for assistance. The solution also attempts to protect enterprise IT knowledge like workflows/scripts from being bound to vendor-specific platforms and tools. The unified operations console reduces the need for IT support engineers to log into multiple ITOps tools. The contextual data collected allows generative AI to perform most of the activities that a support engineer does today. With Tech Mahindra's distinctive

investments in the AI space, comprehensive knowledge of customer needs, and expertise in fostering digital transformation within the enterprise. Ops amplifAler will drive unprecedented efficiency in enterprises, being agnostic to work in any type of organization to eliminate the complexity from everyday work. The launch of generative AI-powered Ops amplifAler is in line with Tech Mahindra's continuous endeavor to transform enterprises with advanced AI-led offerings and solutions, along with its recent addition of Email amplifAler, Enterprise Knowledge Search offering, Evangelize Pair Programming and Generative AI Studio.



## Zain and Pioneers Systems Agreement to Develop IoT Solutions

Zain Saudi Arabia and Pioneers Systems have inked an agreement to develop IoT solutions, manufacture specialized products locally, and support the Kingdom's capabilities to achieve sustainable digital services innovation. Saudi-based Pioneers Systems' CEO Subhi Alghamdi stated: 'Having already achieved remarkable milestones in localizing the production of point-of-sale devices and medical respirators, our cooperation with Zain will open the door wide for us to work together in localizing innovation in the telecommunications and digital services sectors through developing and manufacturing advanced electronic products for advanced applications such as the Internet of Things, Artificial Intelligence, and more.' 📍



## REGIONAL NEWS

### Partnership to Launch UAE as the World's First AI Nation

Mark AB Capital, a leading investment firm, and Blaize, a cutting-edge artificial intelligence (AI) technology company, have joined forces to embark on an ambitious journey following the vision of His Highness Sheikh Mohammed bin Zayed Al Nahyan the President of the United Arab Emirates (UAE), to establish the world's first AI nation. This transformative partnership is set to usher in a new era of technological innovation and sustainable development in the UAE. Under the visionary leadership of His Highness Sheikh Mohammed bin Zayed Al Nahyan, the has consistently demonstrated its commitment to becoming a global technology and innovation hub. This strategic collaboration between Mark AB Capital and Blaize represents a significant milestone in the UAE's quest to lead the world in AI-driven advancements. The partnership between Mark AB Capital and Blaize will soon utilizing Blaize's state-of-the-art edge AI technology that has forty-seven pioneering patents that underpin their cutting-edge solutions. Adding to Blaize's prowess is their strategic backing. They have garnered support from industry giants and visionary investors like Franklin Templeton, Toyota, Temasek, Daimler and Samsung that recognize the company's potential to shape the future of AI and edge computing. This initiative aims to enhance vivisectors including healthcare, transportation, education, finance, and more, through the power of artificial intelligence.

Key objectives of this groundbreaking partnership include:

**AI Infrastructure Development:** Mark AB Capital and Blaize will work together to build the critical AI infrastructure required for the development and deployment of AI solutions across the UAE. This infrastructure will serve as the foundation for the AI nation.

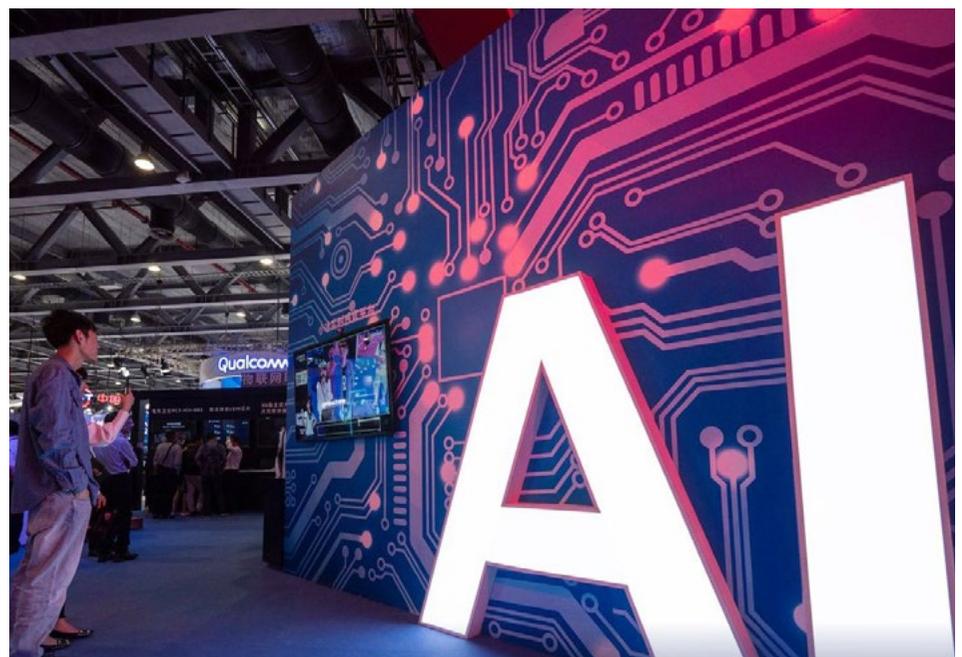
**Research and Development:** The partnership will invest in cutting-edge AI research and

development initiatives to foster innovation in AI technologies, ensuring the remains at the forefront of AI advancements. **AI Talent Development:** Mark AB Capital and Blaize are committed to nurturing local talent in AI through educational programs and initiatives, building a skilled workforce capable of driving the AI nation's growth.

**AI Governance and Ethics:** The collaboration will also prioritize the development of robust AI governance and ethical frameworks to ensure the responsible and ethical use of AI technologies across the nation.

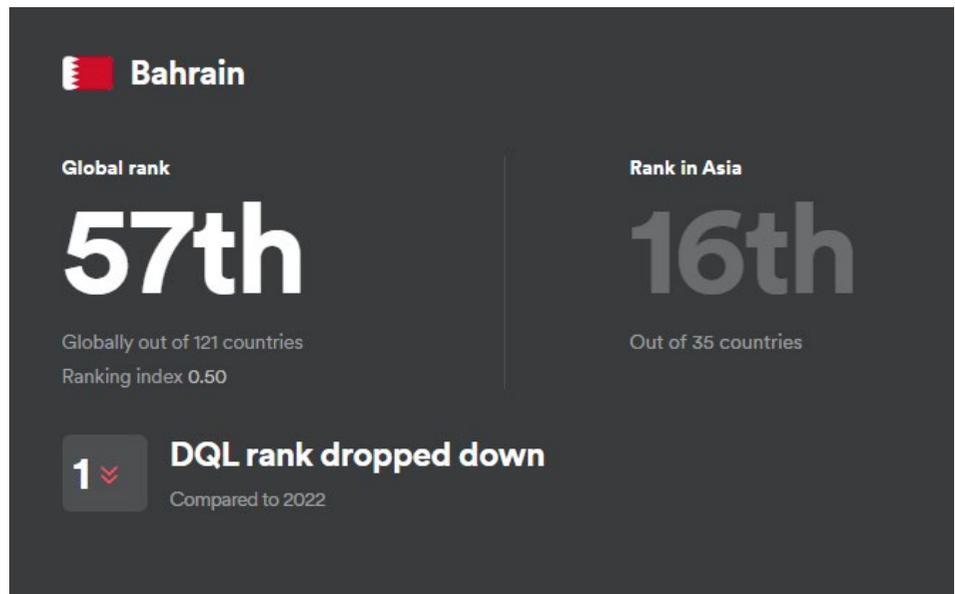
His Highness Sheikh Mohammed bin Zayed Al Nahyan's vision for the as the world's first AI nation represents an unwavering commitment to leveraging AI to improve the lives of citizens and residents while creating a sustainable and prosper future. This partnership with Mark AB Capital and Blaize aligns seamlessly with this vision, promising to accelerate the UAE's journey towards becoming a global AI leader. Commenting on this historic collaboration, Abdullah Mohamed Al Qubaisi, CEO of Mark AB Capital, said, "This

partnership signifies a pivotal moment in the history of technology and investment. The has demonstrated its commitment to embracing AI, and our collaboration with Blaize will propel towards achieving this ambitious goal. We look forward to making a beacon of AI excellence for the world to admire." Dinakar Munagala, CEO of Blaize, expressed his enthusiasm about the partnership, saying, "We are thrilled to partner with Mark AB Capital to embark on this remarkable journey. Our AI technology has the potential to revolutionize every aspect of life in the UAE, from healthcare to education and beyond. Together with Mark AB Capital, we are committed to making the first AI nation, setting a global precedent for AI innovation." This partnership between Blaize and Mark AB Capital marks a historic milestone in the journey toward creating the world's first AI nation. As the takes bold steps to lead in the era of artificial intelligence and sets the stage for a brighter, technologically advanced future for the nation.



## At 100%, Bahrain Has Highest Internet Penetration Rate

Bahrain has the highest internet penetration rate in the world, with 100% of its population connected to the worldwide web. Additionally, it boasts an internet quality that surpasses the global average by seven percent. This is according to Surfshark's 2023 Digital Quality of Life Index (DQL), which assesses digital well-being in 121 territories. "In many nations, 'digital quality of life' has merged into the broader concept of overall 'quality of life.' There's no other way to look at it now that so many daily activities, including work, education, and leisure, are done online," expressed Gabriele Racaityte-Krasauske, spokesperson for Surfshark. In terms of the overall digital quality of life, Bahrain ranked 57th on DQL's list. This marks a one-spot decline from the previous year. The index evaluates countries in five core pillars: quality, affordability, e-infrastructure, e-security, and e-government. According to the latest data, Bahrain particularly excelled in e-infrastructure, securing the 36th spot. E-infrastructure plays a crucial role in facilitating daily online activities, including work, study, and shopping. Meanwhile, it occupied the 48th spot in internet quality, a measure that assesses the speed, stability, and ongoing improvement of connectivity within a country. Fixed internet in Bahrain averages 83 megabits per second (Mbps), while the world's fastest fixed internet, found in Singapore, boasts speeds of 300 Mbps. Conversely, the world's slowest fixed internet, in Yemen, registers just 11 Mbps. Meanwhile, Bahrain has an average mobile internet speed of 202 Mbps. The United Arab Emirates (UAE) offers the fastest mobile internet at 310 Mbps, while Venezuela has the slow-



est at 10 Mbps. Over the past year, Bahrain has witnessed an impressive 97 percent improvement in mobile internet speed and a 9 percent increase in fixed broadband speed. This development could have contributed to Bahrain's high internet penetration rate. For internet affordability and e-government, the country was at the 57th place. The e-government pillar gauges a government's digital service advancement and readiness for Artificial Intelligence. To afford fixed broadband internet, Bahrainis must work for 2 hours and 17 minutes per month, slightly below the global average. For mobile internet, it takes them 1 hour, 21 minutes, and 24 seconds per month, which is in line with global standards. Among all pillars, the country obtained its lowest rank in e-security, at the 68th spot. E-security evaluates a country's preparedness to combat cybercrime and the advancement of its data protection laws. However, the

said figure is already a huge improvement: It's a 24-spot increase from the previous year. Looking into how other countries in the Gulf Cooperation Council (GCC) fared in DQL's list, the UAE is considered the top performer. Based on the overall digital quality of life, it ranked 38th globally. As stated, it also stands out as the country with the best internet quality in the world. Nonetheless, it is ranked 90th in e-security. Meanwhile, Saudi ranked 45th overall. Its top metric is e-infrastructure, placing 28th among all 121 countries indexed. The country particularly faces challenges with internet affordability, its lowest-ranked metric at 74th. Qatar placed 48th in terms of the overall digital quality of life. It further boasts good quality, ranking 19th worldwide. Oman and Kuwait occupied the 61st and 63rd spots, respectively, when it comes to general digital well-being.

## TDRA Announces the Conclusion of the 9th Edition of Its Virtual Camp

The Telecommunications and Digital Government Regulatory Authority (TDRA) announced the conclusion of the 9th edition of "TDRA Virtual Camp", which took place from 7 to 18 August 2023, with the participation of 2,700 students between 7 and 18 years old. This edition's activities aimed at providing a range of digital

expertise and skills to encourage the participants to follow the tech path in their future endeavors. The closing ceremony, which was held virtually, was attended by H.E. Eng. Majed Sultan Al Mesmar, TDRA Director General. In his speech, H.E. Al Mesmar praised the wide participation in this year's edition, as the number of

trainees reached 30,000 students since its launch in 2015, in addition to the quality of ideas presented by the participants. He said: "Today, as we celebrate this new group of creative minds and their inspiring ideas that reflect the true spirit of innovation, we are certain of the success of the vision of TDRA Virtual Camp, and the wisdom of our

wise leadership directives that the future is for those who create it, not for those who talk about it, and the bright ideas presented by our students, are a reflection of this wise vision." H.E. Al Mesmar added: "With the conclusion of the 9th edition of this initiative, which always renews our happiness with the achievements and creative ideas that address the emerging technology that shape the features of our future life, I assure our students that there is no limit to creativity, that tomorrow holds limitless opportunities, and that we, at TDRA, are committed to making every

effort to pave the way towards the future of knowledge, hoping that your ideas and fruitful endeavors will illuminate the path in the second fifty of the union's journey." The camp participants implemented more than 3,300 projects, with an increase of more than 20% in projects, compared to last year's edition. The projects included 15 practical projects on artificial intelligence and machine learning, and 5 projects on generative artificial intelligence (ChatGPT), in addition to 12 awareness sessions on how to safely use technology, the advantages of sustainable technology, and

164 training videos on the main topics of this year's edition. Participating students also received 80 hours of technical support accompanying the camp's activities and events, and 10 hours of live broadcasting to guide students and respond to their inquiries. During the camp closing ceremony, students who won the final prizes were honored. For the age group 7-12 years, the student Obaid Abdullah Al Suwaidi won the gold medal, the student Lamar Muhammad Hamza won the silver medal, and the student Rawda Muhammad Al Mansouri won the bronze medal. As for the 13-18 age group, student Mansour Muhammad Al-Shibli won the gold medal, student Taif Ahmed Abdel Jalil won the silver medal, and student Aousha Khaled Al-Muhairthe won the bronze medal. The closing ceremony also included presentations by the winning students with detailed explanation of their projects. "TDRA Virtual Camp" is part of TDRA's community awareness initiatives aiming to spread awareness in the community. As part of this initiative, TDRA implements two camps per year, in summer and winter, which focus on modern technologies and acquiring the necessary skills that the younger generation needs in their academic and professional lives, thus encouraging the spirit of innovation and driving creative talents to take the initiative in this direction.



## PTCL Gets Green Light for Telenor Takeover Bid

Pakistani fixed voice and broadband provider Pakistan Telecommunication Company Limited (PTCL) has confirmed that it has been authorized to submit a binding offer for the takeover of an unspecified target company, widely reported to be Norwegian-owned cellco Telenor Pakistan. PTCL notes in its filing that the authorization follows a due diligence process, and that the transaction is subject to the acceptance of its offer by the target company and receipt of relevant regulatory approvals. PTCL was given the green light to explore potential investment opportunities in Pakistan's telecom sector in January this year, following which it

was reported that the telco was preparing a bid for Telenor's local unit. For its part, the Norwegian group is reportedly keen to exit the Pakistani market due to the deteriorating macro-economic situation in the country and recent clashes with the regulator over licensing fees. In particular, the group expressed its frustration that it is required to pay its license fees in US dollars rather than Pakistani rupees despite collecting revenues in the latter currency and the rapid devaluation of rupee in recent years. PTCL, which is majority owned by UAE-based e& group and partly owned by the Pakistani government, has a presence in the mobile

sector through its wholly owned subsidiary Pakistan Telecommunication Mobile Limited (PTML), which uses the Ufone brand. Should PTCL succeed in its bid for Telenor Pakistan and combines the two units, the merged entity would be closely tied with the market's current frontrunner, Jazz. Jazz had a market share of 37.4% at the end of June 2023, with a total of 71.3 million subscriptions. At that date Telenor and Ufone had shares of 24.6% (46.9 million subscriptions) and 12.8% (24.5 million subscriptions), respectively – equating to a combined total of 37.4%, with around 71.4 million subscriptions.

## Roadmap for Using the 5.9GHz Band for Vehicle-to-Everything (V2X) Systems

Saudi Arabia's Communications, Space & Technology Commission (CST) has issued its 'Roadmap for Using the 5.9GHz Band for Vehicle-to-Everything (V2X) Systems.' The initiative outlines CST's strategic approach in providing the frequency spectrum needed for these systems within the Kingdom. It aims to keep pace with rapid advancements in intelligent transportation systems and to facilitate the future deployment of autonomous vehicles. These systems are expected to improve the quality of life by enhancing road safety and providing drivers with related data. The roadmap includes a comprehensive analysis of V2X applications and types of communications, as well as key developments in these applications, plus a review of regulatory practices in various countries and an analysis of public consultation feedback. CST is keen to enable Cellular V2X (C-V2X) 'for several critical reasons including the advanced use-cases offered by the technology and its seamless integration with existing 4G and 5G networks'.

**CST issues**

### The Roadmap for Using the 5.9 GHz Band for Vehicle-to-Everything (V2X) Systems

**About the Roadmap**

The roadmap aims to define CST's strategic direction to provide frequency spectrum needed for **Vehicle-to-Everything (V2X) communication systems** in the Kingdom.

**Goals**

- ▶ **Improve** the quality of life in the Kingdom by enhancing road safety
- ▶ **Enable** future deployment of autonomous vehicles
- ▶ **Keep** pace with rapid advancements in intelligent transportation systems
- ▶ **Enable** smart cities

To view roadmap

## E-Space and Bahraini Telecoms Group Beyon Signed MoU

IoT-satellite-focused company E-Space has signed a Memorandum of Understanding (MoU) with Bahraini telecoms group Beyon to enable space-

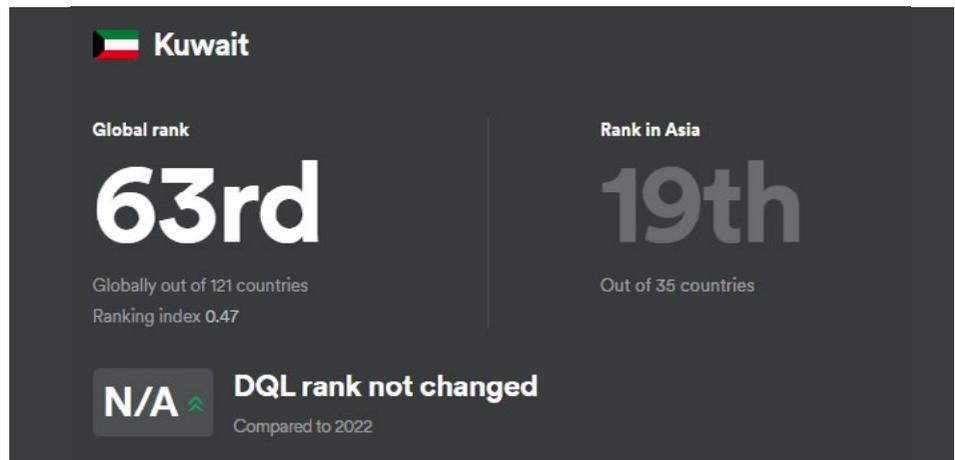
based IoT services in Bahrain. The pair will collaborate on the development of satellite IoT solutions that leverage Beyon's established network capabilities and E-Space's advanced low Earth orbit (LEO) constellation and novel device capabilities, aiming to create unique solutions that will support uninterrupted, 'use anywhere' real-time IoT data services. Beyon CEO Mikkel Vinter commented: 'We envision a future where the combination of terrestrial and space communications offers continuous coverage and advanced IoT services to deliver highly-diversified digital growth across a variety of sectors. We anticipate our collaboration with E-Space will enable the discovery of new business models and accelerate the proliferation of innovative applications that will augment both consumer and enterprise customer opportunities and experiences, while positively contributing to Bahrain's digital economy.'



## Kuwait Ranks '63rd' in World in Digital Quality of Life Index

Surfshark's 5th annual Digital Quality of Life Index (DQL) ranks Kuwait 63rd in the world. Out of the Index's 5 pillars, Kuwait performed best in internet quality, claiming 26th place, while facing challenges in e-security, ranking 104th. The nation ranks 35th in internet affordability, 45th in e-infrastructure, and 66th in e-government. In the overall Index, Kuwait lags behind Saudi Arabia (45th) and Qatar (48th). In Asia, Kuwait takes 19th place, with Singapore the leader in the region. "In many nations, 'digital quality of life' has merged into the broader concept of overall 'quality of life'. There's no other way to look at it now that so many daily activities, including work, education, and leisure, are done online. That's why it's crucial to pinpoint the areas in which a nation's digital quality of life thrives and where attention is needed, which is the precise purpose of the DQL Index", says Gabriele Racaityte-Krasauske, Surfshark's spokeswoman. Kuwait's internet quality is 21% higher than the global average.

- Fixed internet averages 179 Mbps in Kuwait. To put that into perspective, the world's fastest fixed internet – Singapore's – is 300 Mbps. Meanwhile, the slowest fixed internet in the world – Yemen's – is 11 Mbps.
- Mobile internet averages 210 Mbps. The fastest mobile internet – the UAE's – is 310 Mbps, while the world's slowest mobile internet – Venezuela's – is 10 Mbps. Compared to Saudi Arabia, Kuwait's mobile internet is 15% faster, while fixed broadband is 63% faster. The internet is affordable in Kuwait compared to other countries.



- Kuwaitis have to work 59 minutes a month to afford fixed broadband internet. While this is less than average, it is 3 times more than in Romania, which has the world's most affordable fixed internet (Romanians have to work 18 minutes a month to afford it).
- Kuwaitis have to work 1 hour 22 minutes 36 seconds a month to afford mobile internet. This is 5 times more than in Luxembourg, which has the world's most affordable mobile internet (Luxembourgers have to work 16 minutes a month to afford it). Kuwait is 104th in the world in e-security. The e-security pillar measures how well a country is prepared to counter cybercrime, as well as how advanced a country's data protection laws are.

In this pillar, Kuwait lags behind Saudi Arabia (42nd) and Qatar (67th). Kuwait is unprepared to fight against cybercrime, the country has no data protection laws. Kuwait is 45th in e-infrastructure and 66th in e-government. Advanced

e-infrastructure makes it easy for people to use the internet for various daily activities, such as working, studying, shopping, etc. This pillar evaluates how high internet penetration is in a given country, as well as its network readiness (readiness to take advantage of Information and Communication Technologies). Kuwait's internet penetration is high (99% – 6th in the world), and the country ranks 61st in network readiness.

The e-government pillar shows how advanced a government's digital services are and the level of Artificial Intelligence (AI) readiness a country demonstrates. Kuwait's e-government is similar to the global average. Globally, the internet is more affordable than last year.

- Fixed internet is 11% more affordable than last year – on average, people have to work 42 minutes less a month to afford it.
- Mobile internet is 26% more affordable than last year – people have to work 41 minutes less to afford it.

## Pakistan Ranks 9th Globally in Mobile Connectivity with 165 million Users

In a remarkable feat for Pakistan, the nation has propelled itself into the global spotlight by securing a spot in the top 10 rankings of countries with the highest number of cell phone users. With an impressive 165 million mobile phone users, Pakistan now stands shoulder to shoulder-with global giants such as China and India, showcasing its rapid strides in mobile connectivity. In

a world increasingly interconnected by technology, the latest data on cell phone usage reveals that China and India have emerged as the undisputed champions of mobile communication, with a combined user base of over 2.8 billion people. According to recent statistics, these two Asian giants are setting the pace for global mobile connectivity, solidifying their

positions as the top two countries with the highest number of cell phone users.

China - 1.6 billion users

China, the most populous country in the world, leads the pack with a staggering 1.6 billion cell phone users. With its rapid technological advancements and widespread access to affordable mobile devices, China's mobile market has seen

continuous growth over the years, further cementing its position as a global tech powerhouse.

Bharat (India) - 1.28 billion users

Following closely behind China is India, often referred to as "Bharat," with an impressive 1.28 billion cell phone users. India's remarkable mobile penetration is a testament to the nation's digital revolution, driven by factors such as affordable smartphones and widespread internet access, particularly in rural areas.

Indonesia - 386 million users

In third place is Indonesia, boasting 386

million cell phone users. As the largest archipelago in the world, Indonesia's mobile connectivity plays a vital role in connecting its diverse population spread across thousands of islands.

United States - 327mln users

The United States takes fourth place with 327 million cell phone users. While it ranks lower in terms of sheer numbers, the country remains a leader in mobile technology innovation and application development.

Pakistan - 165mln Users Joining the ranks of the top 10 countries in cell phone usage is Pakistan, with a significant user base

of 165 million people. Pakistan's mobile market has experienced rapid growth in recent years, driven by increased access to affordable smartphones and improved telecommunications infrastructure.

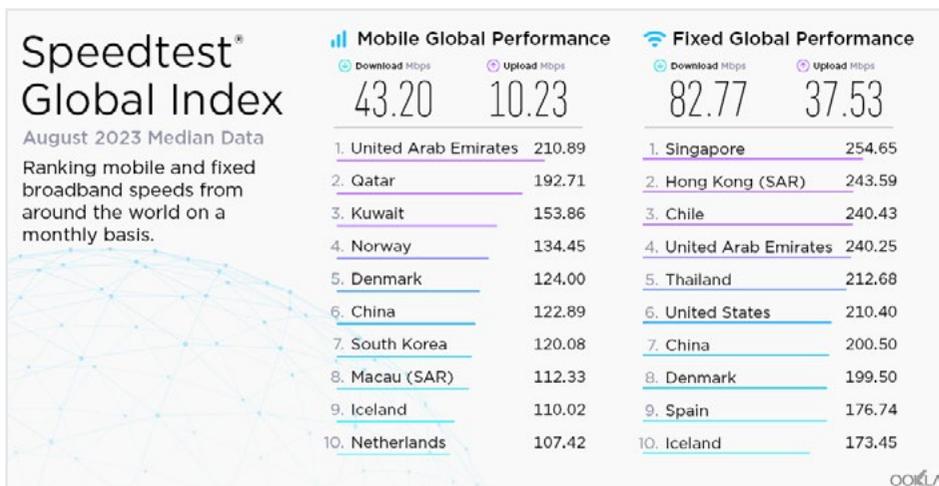
The proliferation of mobile phones in Pakistan has not only transformed the way people communicate but has also opened doors to essential services like healthcare, education, and e-commerce. Mobile connectivity has bridged geographical gaps, connecting remote areas to the digital world and empowering communities across the nation.

## Qatar Ranks Second in the Middle East in 5G Speeds

Qatar has emerged as the second in the Middle East for median download speeds, clocking in at 68.63Mbps for 4G and a remarkable 462.96Mbps for 5G networks. These speeds indicate that Qatar provides mobile users with the necessary bandwidth to enjoy an uninterrupted gaming experience, particularly for data-intensive multiplayer games. The report highlights Qatar's impressive standing in terms of median download speeds for both 4G and 5G networks, as well as its strong position in mobile gaming, reflecting the nation's commitment to superior telecom infrastructure. Notably, Qatar also attained the third-highest game score in the Middle East, an impressive 82.81 out of 100, on a scale that evaluates the overall gaming experience. Ookla noted that this achievement directly correlates with the exceptional mobile network performance in the Qatari market, enhancing the

gaming experience for its residents. The report further highlights that 5G networks outperformed 4G in terms of game scores across all Gulf Cooperation Council (GCC) countries, confirming the advantages of 5G technology in gaming. The larger bandwidth and reduced latency offered by 5G contribute to smoother and more responsive gameplay. On average, game scores on 4G networks lagged behind 5G by percentages ranging from 5.37 percent in Oman to 8.26 percent in Saudi Arabia. Ookla's report also provides recommendations for further enhancing the gaming experience in the region. It suggests that GCC operators can continue to improve by investing in 5G infrastructure, encouraging more customers to migrate to 5G, and establishing local gaming servers. These measures are seen as crucial for the region, given its large youth demographic, a burgeoning casual gaming community,

widespread smartphone adoption, and high-speed Internet access. Download speed is identified as a vital factor in ensuring a seamless gaming experience, especially for downloading games and updates. Ookla recommends that mobile operators in the GCC focus on delivering high download speeds to cater to the demands of gamers. The report assumes that 25Mbps is the minimum download speed required for casual gamers to enjoy a good gaming experience, and the data shows that GCC markets comfortably exceed this requirement on 4G while significantly surpassing it on 5G. In addition to download speeds, upload speed also plays a crucial role in multiplayer gaming, and GCC markets excel in this regard. Qatar, Bahrain, and the UAE are noted for offering the fastest upload speeds, reaching a maximum of 38.48Mbps. The report concludes by highlighting the untapped potential of the gaming market in the GCC region, which can experience tremendous growth with continued investments in robust telecom infrastructure. The investments made by Gulf operators in 5G infrastructure have not only improved their Game Score rankings but have also demonstrated their dedication to fostering the gaming industry. Ookla suggests that the region can further minimize latency and enhance the gaming experience by deploying local gaming servers, edge computing infrastructure, and 5G SA technology, positioning it to lead in game development and nurture a thriving local gaming ecosystem. 🎮



## SATELLITE NEWS

### Paratus Signs Reseller Agreement with Starlink for Africa

Integrated network services company Paratus Group has entered an agreement as a distributor for high-speed services across the African continent on behalf of Starlink, the world's first and largest satellite constellation using a low Earth orbit. This agreement, says Paratus, will allow it to provide Starlink to its customers across Africa, as operating licenses are awarded to Starlink in those countries. Initially, and with immediate effect, Starlink will be available from Paratus in Mozambique, Kenya, Rwanda and Nigeria before being rolled out to more countries. Starlink is a satellite internet constellation operated by American aerospace company SpaceX. It provides high-speed broadband internet using a simple, scalable hardware platform that, it says, can be easily distributed across locations around the world. Starlink currently provides services to tens of thousands of business locations and serves customers in a multitude of capacities. Paratus will be able to provide its customers with both fixed, mobility and maritime services with immediate effect and with 24/7/365 enterprise support. Group Chief Commercial Officer of Paratus, Martin Cox says: "This agreement aligns perfectly with our vision of transforming Africa through exceptional digital infrastructure and customer service. It means we can offer industry sectors – such as land and offshore energy, mining, hospitality, education, healthcare, agriculture and more – the



reliable and constant connectivity they need to flourish, no matter how remote they are."

### OneWeb TONOMUS J.V. Selects Albabtain LeBlanc to Construct Satellite Network Portal in Tabuk, Saudi Arabia

First Tech Web Company Limited – a joint venture between OneWeb, the UK-based global communications agency and low Earth orbit (LEO) satellite service provider, and TONOMUS, the world-leading tech company powering the world's first ecosystem of cognitive technologies at NEOM – has selected Albabtain LeBlanc, a leading Saudi Arabian construction company, to



construct a satellite station in Tabuk, Saudi Arabia. The station will form part of the joint venture's ground infrastructure, supporting the mission of bridging the digital divide across Saudi Arabia and the broader MENA region by providing consistent access to high-speed, low-latency internet connectivity to people and businesses in remote and underserved areas. The station is expected to be completed by the end of 2023, as Albabtain LeBlanc joins OneWeb's roster of partners across the Middle East, Europe, Africa and Alaska. "We are excited to partner with Albabtain LeBlanc to build our satellite station in Tabuk," said Laith Hamad, CEO of the OneWeb TONOMUS J.V. "This partnership is a key milestone in our efforts to bring high-speed internet access to people and businesses in Saudi Arabia and around the world." "We are proud to partner with the OneWeb TONOMUS J.V. on this important project," said Saleh Al Bedaiwi, General manager of Albabtain LeBlanc. "This collaboration is a testament to our commitment to supporting the development of the Kingdom's digital economy." The announcement follows OneWeb's appointment as Observer Member by the Digital Cooperation Organization (DCO). The

role will allow the company to gain and provide insights into the initiatives the DCO is undertaking across member nations, including Saudi Arabia, Bahrain,

Jordan, Morocco and Pakistan, as well as the broader digital world to accelerate the growth of the digital economy across DCO member populations. The network

will also be used to support a variety of applications, such as telemedicine, education and agriculture.

## Ofcom Measures to Encourage Satellite Connectivity for Maritime Services and Protect Other Services

Ofcom has today made changes to its Earth Station Networks license to confirm that NGSO satellites can deliver the latest space-based broadband services to ships and boats. At the same time, the new measures are designed to help us protect other services, such as radio astronomy, from harmful interference. Every satellite operator providing broadband services in the UK must hold an Earth Station Network license. These licenses authorize access to spectrum so that ground-based terminals can communicate with satellites. To ensure all providers of UK satellite services can access the spectrum in a similar way, we have made the following changes to the current Earth Station Network license:

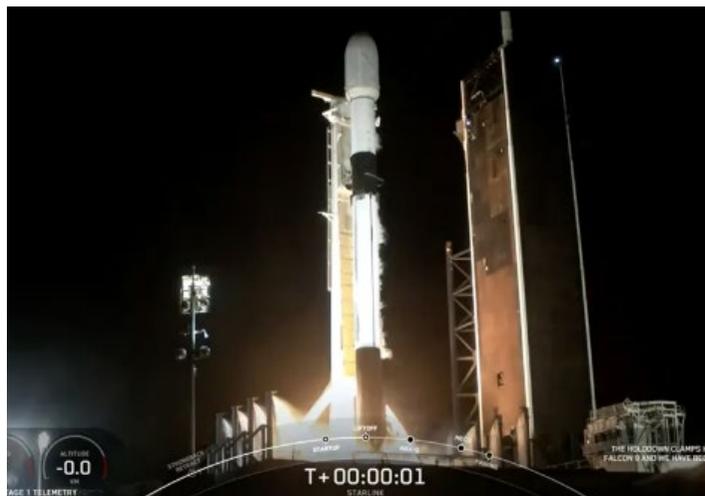
- Explicit authorization for earth stations on boats, ships and offshore installations that connect to non-geostationary orbit (NGSO) satellites. This clarifies that these services are permitted in the territorial seas of the UK, Isle of Man and Channel Islands, and ensures that all NGSO services – whether on land, sea or air – all operate under the same license conditions.
- New license conditions to support the protection of geostationary orbit (GSO) satellite services, radio astronomy and fixed links



- from harmful interference caused by NGSO systems.
- A new definition of the geographic boundaries of the license. The new/updated license will be issued to all new applicants granted an Earth Station Network license in future. The updated terms will be issued to all existing license holders in the form of a variation to their current licenses.

## SpaceX Launches Starlink Satellites on Record-Breaking 62nd Mission of the Year

SpaceX just set a new launch record. The company sent 21 of its Starlink internet satellites to orbit atop a Falcon 9 rocket



from NASA's Kennedy Space Center in Florida at 10:47 p.m. EDT (0247 GMT on Sept. 4). It was SpaceX's 62nd orbital mission of 2023, setting a new record for most flights in a year, according to company founder and CEO Elon Musk. The old mark was set in 2022. The Falcon 9's first stage came back to Earth as plane. It touched down about 8.5 minutes after liftoff on the drone ship Just Read the Instructions, which was stationed in the Atlantic Ocean. It was the 10th launch and landing for this particular booster, according to a SpaceX mission description. The Falcon 9's upper stage, meanwhile, kept on flying. It's scheduled to deploy the 21 Starlink satellites into low Earth orbit (LEO) about 65 minutes after liftoff. The launch was part of a big day for SpaceX. The company is also bringing home the four astronauts of its Crew-6 mission, who had been at the International Space Station (ISS) since March. Crew-6's Crew Dragon capsule, named Endeavour, departed the ISS a little after 7 a.m. EDT (1100 GMT) today. It will splash down in the ocean off the Florida coast at around 12:17 a.m. EDT (0417 GMT).

## KDDI Partners with SpaceX to Bring Satellite-to-Cellular Service to Japan

The Japanese telecom provider KDDI announced that it has signed an agreement with SpaceX to introduce satellite-to-cellular service in Japan. Leveraging SpaceX's Starlink low earth orbit (LEO) satellites and KDDI's extensive national wireless spectrum, this partnership aims to enhance cellular connectivity in areas, including remote islands and mountains that have been traditionally hard to reach using conventional 4G and 5G networks. As per the statement, the joint initiative builds on the common vision of "connecting the unconnected," to empower users in remote regions with seamless cellular connectivity. KDDI and SpaceX plan to roll out SMS text services as early as 2024, with plans to extend to voice and data services subsequently. "Almost all existing smartphones on the KDDI network will be compatible with this new service as it employs the device's existing radio services," said the statement. Both the partners, KDDI and SpaceX also extend an invitation to mobile network operators globally to join the ecosystem of Mobile



Network Operators (MNO), bringing the next-generation satellite-enabled connectivity to their customers. KDDI's au network is said to provide 99.9 percent "population coverage" to the people of Japan. Further to its efforts, KDDI says it will provide "connecting the unconnected" experience, by enabling smartphones to

connect to satellites. SpaceX's Starlink delivers high-speed, low-latency internet to users all over the world. As the world's first and largest satellite constellation using a low Earth orbit, Starlink says it will deliver broadband internet capable of supporting streaming, online gaming, video calls and more.

## YahClick and NIGCOMSAT Partner to Expand Broadband Penetration

YahClick, the data solutions subsidiary of the UAE's flagship satellite solutions provider Al Yah Satellite Communications Company (YahSat), has partnered with Nigerian Communications Satellite (NIGCOMSAT) to expand broadband penetration in sub-Saharan Africa and boost access to critical electronic services across the region. The project is expected to begin in Q4 2023

and will see YahClick work closely with NIGCOMSAT to provide faster and more reliable broadband internet connectivity. The improvements, say the partners, will result in speed increases of up to 25 Mbps for standard profiles and up to 100 Mbps for dedicated corporate users. This, the partners say, will empower the delivery of essential education, health, and a wide range of other public and corporate services. YahClick says its expertise and cutting-edge technology will enable the rollout of e-government applications and help accelerate Nigeria's digitization plans, providing unserved and underserved communities with uninterrupted internet. A steering committee comprising executives from both companies has been formed to ensure the implementation of the project is aligned to the national requirement and essential service institutions in Nigeria. Sulaiman Al Ali, Yahsat's Chief Commercial Officer, explains: "Our partnership will play an important role in helping the Nigerian government as well as private organizations roll out critical electronic services to underserved and unserved communities across the country. For Nigeria's digitization drive to be successful, it is imperative that in-country infrastructure is reliable enough to deliver uninterrupted services. YahClick has extensive experience in providing advanced and affordable technologies that are easily accessible in remote regions." 🌐



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## ARTICLE

## Shaping 6G's Future



**Dr. Brahim GHRIBI**

Head of Government Affairs MEA  
Nokia

**NOKIA**

The roll-out of 5G systems continues to expand successfully around the globe with currently hundreds of networks being operational worldwide. The journey of 5G evolution will definitely continue for many years to come with innovations coming as evolutionary steps under the umbrella of "5G Advanced". This will comprise solutions to enhance coverage, user experience, expand beyond connectivity and operational excellence.

Keeping up with the tradition of a new generation of cellular system once every ten years or so, there is an expectation that a 6G system will be standardized with deployments starting around 2030. Since it often takes more than ten years for a novel technology to see the commercial daylight, Research on novel technology components for 6G is underway.

*Nokia believes that in the 6G era, the digital, physical and human (biological) worlds will become far more integrated. Moving beyond voice, video and data communications, future applications in the 6G-era will benefit from distributed compute services, intelligence, and analytics capabilities, as well as sensing, spatial and temporal services ...*

Looking at the history of cellular networks in the past few decades: 2G/3G played a key role in unleashing the potential of human connections and mobility. 4G, on the other hand played a key role to bring information and social interaction to the forefront of our daily lives. With 5G, the emphasis is not only on enhanced mobile Broadband, but also on the potential of connecting machines and sensors and digital transformation of the vertical industries.

Nokia believes that in the 6G era, the digital, physical and human (biological) worlds will become far more integrated. Moving beyond voice, video and data communications, future applications in the 6G-era will benefit from distributed compute services, intelligence, and analytics capabilities, as well as sensing, spatial and temporal services for the precise localization of people and objects within their environments and the synchronization of their actions. Novel use case families for communications in the 2030s will include, among others, immersive telepresence, massive twinning, collaborating robots as well as trusted and specialized 6G subnetworks.

## Timeline

6G research is picking up with several initiatives such as the Hexa-X European 6G flagship project with Nokia acting as the overall lead, Next G Alliance in the US, China's IMT-2030 (6G) Promotion Group, Beyond 5G Consortium in Japan, and the Korean government's (MSIT) 6G R&D implementation plan.

6G Standardization is estimated to start by 2024/2025-time frame, with first 3GPP 6G Specifications to be ready by 2028, and first deployments starting by 2029/20230. 6G success depends on global unified approach where we need to bring in harmony different regulatory and standardization efforts and timelines.

## Six fundamental technologies and dimensions to design 6G

Networks have traditionally been measured according to their speed & capacity, reliability & latency and scale & flexibility. 6G demonstrates its difference from previous generations by recognizing from the beginning the need for defining key value indicators (KVIs) such as sustainability, trustworthiness, and digital inclusion to drive key challenges of research, as well as to enable various use case families of the 2030s. In other words, considerations of both "societal pull" and "technology push" drive the 6G research journey in scope and substance.

Nokia Bell Labs has identified six key

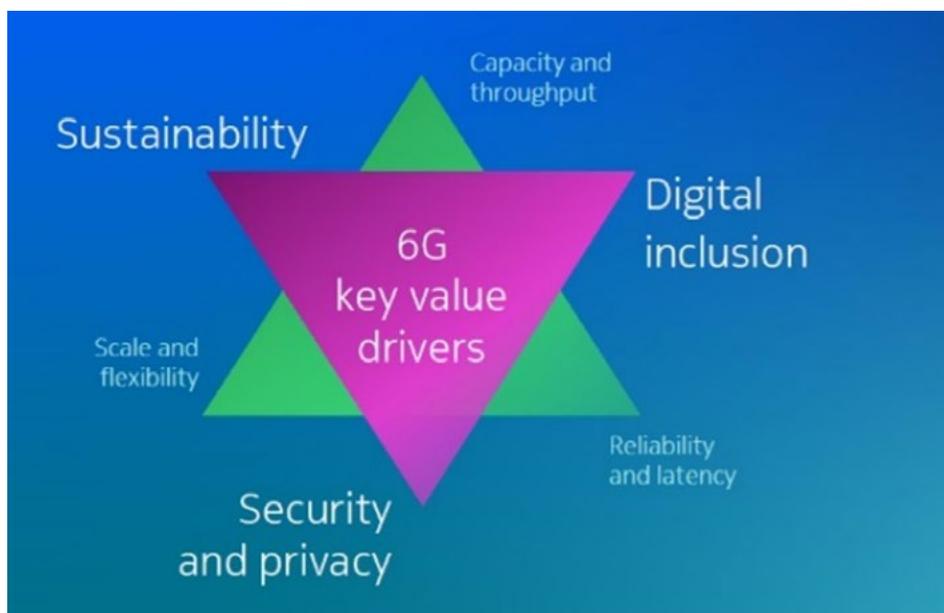


Figure 1 – 6G key value drivers

potential technologies that will be vital components of future 6G networks (Figure 2): (i) AI/ML-driven air interface design and optimization; (ii) expansion into new spectrum bands and new cognitive spectrum sharing methods; (iii) the integration of localization and sensing capabilities into system definition (network as a sensor); (iv) the achievement of extreme performance requirements on latency and reliability (extreme connectivity); (v) new cognitive, automated, and specialized network architecture paradigms involving sub-networks and RAN–core convergence; and (vi) new security and privacy schemes.

## Conclusion

The tradition of deploying a new cellular generation approximately every decade will continue into the Future. 6G however is at the pre-standardization research phase, and 5G will continue for many years to be the key focus of operators rolling out networks, monetizing their investments and embracing latest features of 5G under the '5G Advanced' developments.

The expansion of mobile cellular to verticals that began with 4G and 5G will continue and become a game changer in the industry for the next years. These expansions will become both broader and deeper with 6G in the future beyond 2030. The rapid advance of AI/ML technology and its effectiveness in solving problems in several domains points toward a 6G system that will fundamentally exploit these new capabilities to improve performance by better adapting to the operational environment. The insatiable demand for higher capacity and peak rates points toward technologies that will exploit existing and new spectrum bands. As the density of infrastructure increases, coupled with the use of wider bandwidth signals, especially indoors, new opportunities to utilize this for localization and sensing will encourage a 6G design that is not only optimized for communication but also for perception and understanding of the physical world and people's needs, thus augmenting human existence in the most intuitive way. 🌱

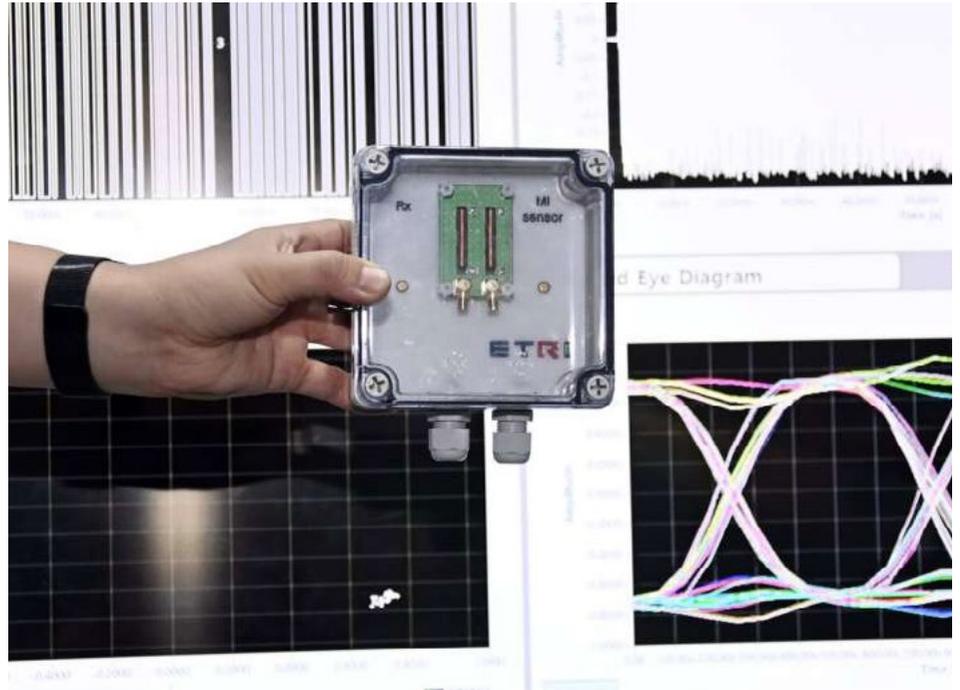


Figure 2. Six technology drivers for 6G

## TECHNOLOGY NEWS

### Researchers Confirm Possibility of Wireless Communication 40m Underground by National Research Council of Science & Technology

South Korean researchers have made a discovery that enables wireless communication below the Earth's surface, a significant departure from their traditional focus on terrestrial communication systems. This development opens new avenues for confirming the survival of individuals trapped due to accidents such as mine collapses during rescue operations. The Electronics and Telecommunications Research Institute (ETRI) announced that they have successfully developed the world's first "Subterranean Magnetic Field Communication Core Technology." Utilizing a transmitting antenna with a diameter of 1 meter and a receiving antenna of several centimeters, the institute managed to send and receive voice signal-level capacity up to 40 meters below the Earth's surface in a mine. Conventional wisdom held that wireless communication in the complex underground environments of mines was virtually impossible due to signal attenuation. However, ETRI overcame these obstacles by developing a new communication system that leverages the unique boundary conditions of magnetic fields within the medium. The result is a successful transmission of voice data-level capacity in a mine where stable communication was previously unfeasible. The research team miniaturized the size of their transmitting antenna to 1 meter, contrasting with the tens-of-meters scale antennas used in previous international research. The system also features small receiving sensors based on magnetic induction, with dimensions in the order of centimeters. According to the researchers, the newly developed transmitting and receiving antennas function akin to an Access Point (AP), essentially serving as a base station linking the surface and the underground. Therefore, it is expected that once transmitting devices on the surface



and receiving devices underground are installed, individuals awaiting rescue could communicate through personal devices like mobile phones, connected to these antennas. The successful communication test was conducted over a distance of 40 meters inside a mine composed of limestone bedrock. The team explained that they used a very narrow low-frequency band of 20kHz, rather than the MHz or GHz range commonly used in general wireless communication. This frequency band was chosen to minimize material loss in the subterranean or underwater environment, and to suit the size of the antennas. The data transmission rate for voice signals was maintained at around 4kbps, sufficient for basic two-way communication. In the labyrinthine darkness of underground mines, which bear a resemblance to the complexity of an ant colony, researchers have demonstrated the ability to transmit data directly over a distance of 40

meters between various levels. This successful application of magnetic field communication promises to bring substantial changes to the underground mining industry. Notably, this technology is expected to offer a reliable mode of communication during emergencies such as mine collapses, underground fires, and other disaster scenarios that typically disrupt conventional communication systems. ETRI emphasized that magnetic field communication systems would maintain connections between miners and rescue teams during accidents, thereby facilitating better-coordinated rescue efforts. The technology is also seen as a means to reduce response time in emergencies and to enhance safety measures. Additionally, Last year, they successfully executed underwater communications up to a depth of 40 meters in freshwater regions such as rivers and streams.

## Telekom Deutschland Achieves 'World Record' 12Gbps Speed by Aggregating 3.6GHz, 6GHz Bands

Telekom Deutschland has set what it claims is a 'new world record' by achieving download speeds of 12Gbps in a trial in Alzey, Rheinhessen. The test aggregated commercial 3.6GHz 5G spectrum with a 400MHz block of unlicensed 6GHz spectrum, with the peak download speed measured at a distance of 100 meters. The 6GHz band alone was capable of supporting speeds of 11Gbps, Telekom noted. Abdu Mudesir, Head of Technology at Telekom Deutschland, commented: '6GHz spectrum has the characteristic to meet the growing demand of our customers for more capacity and more speed. That is why we hope that the World Radiocommunication Conference will set



the direction for mobile radio use.' Telekom began testing 6GHz 5G frequencies in November 2022 in Bonn.

## Near-Field Wideband Channel Estimation for Extremely Large-Scale MIMO

Extremely large-scale multiple-input-multiple-output (XL-MIMO) at millimeter-wave (mmWave) and terahertz (THz) bands plays an important role in 6G networks for its extreme high beamforming gain and abundant spectrum resources. To unleash the superiority of XL-MIMO, accurate channel estimation is of great importance to perform efficient precoding. Unfortunately, as opposed to classical 5G massive MIMO, channel estimation for high-frequency XL-MIMO in 6G faces a serious challenge of "near-field beam split." To elaborate, high-frequency XL-MIMO brings the qualitative paradigm shift from conventional far-field planar-wave communications to its near-field spherical-wave counterpart. In addition, the ultra-large bandwidth at mmWave and THz make the electromagnetic wavefront of different frequency components differ from each other, leading to the undesired beam split effect. The coupling of near-field and beam split effects gives rise to a complex structure of wireless channels, whose estimation is intractable for existing methods. New research, titled "Near-Field Wideband Channel Estimation for Extremely Large-Scale MIMO," was published in Science China Information Sciences. It is co-authored by Mr.

Mingyao Cui (first author) and Prof. Linglong Dai (corresponding author) from Tsinghua University, China. In this article, a bilinear pattern detection (BPD) based approach was proposed to accurately recover the high-frequency XL-MIMO channel. First, the bilinear pattern of the near-field beam split effect is revealed, which implies that the sparse support set of near-field channels in both the angle and distance domains can be regarded as a linear function against frequency. Then, this bilinear pattern is used to estimate the angle-of-arrival (AoA) and distance parameters of each near-field path component via a modified simultaneously orthogonal matching pursuit algorithm. Finally, simulation results demonstrated their scheme is capable of achieving high channel estimation accuracy in all far-field/near-field/narrowband/wideband conditions. This paper provides a solution to channel estimation in the presence of near-field beam split. It is expected that the bilinear pattern could be extended to various near-field wideband communication scenarios for addressing near-field beam split issues, such as reconfigurable intelligent surface communications and cell-free massive MIMO communications.

## EE Confirmed to Have Carried Out First VoNR Call

EE, the mobile subsidiary of BT Group, is confirmed to have carried out what is claimed to be the UK's first call using voice-over-New Radio (VoNR) technology. The development was revealed in a press release issued by BT Group regarding EE's progress towards 5G Standalone (5G SA) technology, in which the company also

stated that EE has now moved 'the vast majority' of its mobile subscriptions on to its new 5G-ready network core. In parallel, it was reported that EE has continued to upgrade 'many' of its key radio sites across the country, while it has also begun issuing 5G SA-capable SIMs to end users. 📶

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## REGULATORY NEWS

## CST Publishes Frequency Spectrum Regulations for Maritime Services

The Communications, Space and Technology Commission (CST) of Saudi Arabia has published the Frequency Spectrum Regulations for Maritime Services, which aims to regulate the use of maritime radio services, raise the efficiency of spectrum use by organizing the channels for these services, and ensure international harmonization to protect these services from harmful interference. The document highlights the main elements for regulating maritime services, such as types of licenses, management of numbering resources, technical terms and conditions for licensing, and frequency allocations for maritime radio services. The maritime radio services are of essential help to the maritime sector, in communications, navigation, distress and safety. According to CST, this document plays a role in managing the use of maritime radio services, raising the efficiency spectrum use in the Kingdom, according to best international practices, and providing spectrum for all maritime radio services in the Kingdom while ensuring compliance with international regulations and protection from wireless interference. The document can be viewed on CST website.

**Objectives of the Regulations**

- Regulate** the use of the maritime radio services
- Raise** the efficiency of spectrum use
- Ensure** international harmonization

**Highlights of the Regulations**

- Types of Licenses** for Maritime Radio Services
- Management** of Numbering Resources for Maritime Radio Services
- Technical** Terms and Conditions for Licensing
- Frequency** Allocations for Maritime Radio Services

To view the regulations

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## Industry Body Raises Concerns Over Terms of Argentina 5G Auction

Mobile industry association GSMA Latin America has raised concerns over the terms of Argentina's planned 5G spectrum auction, observing that the proposed tender 'is contrary to best international practices in spectrum allocation and puts the future of 5G in the country at risk'. According to a report by BNamericas, the GSMA stated: 'The price set in Argentina is very high in relation to the economic situation of the country and the revenues of the industry ... The reservation of free

spectrum for [state-owned telco] ARSAT compromises the future availability of the resource. This adds to an existing situation of artificial scarcity. Argentina has 210MHz of spectrum available to assign. Unused spectrum is a missed opportunity to connect more users with greater speeds.' On 28 August the National Communications Agency (Ente Nacional de Comunicaciones, ENACOM) approved the conditions for a long-awaited 5G spectrum auction encompassing the 3300MHz-

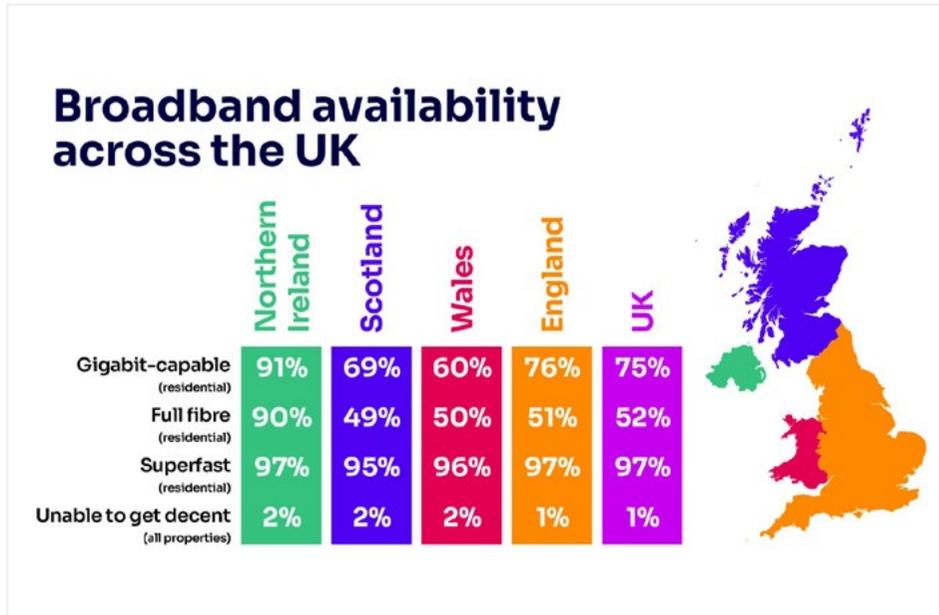
3600MHz frequency band. A 300MHz tranche of spectrum will be auctioned in three 100MHz TDD blocks, each with a base bidding price of USD350 million, under licenses permitting both mobile and fixed 5G network services. Qualifying applicants must submit bids by 29 September 2023. Somewhat controversially, the government has reserved spectrum in the 3600MHz-3700MHz band for ARSAT with a view to enabling 5G use in the public sector and via cooperatives and SMEs.

## Ofcom Says Full Fiber Broadband Now Available to More Than Half of British Homes

British telecoms regulator Ofcom has claimed that full fiber connectivity is now available to more than half of the country's homes. In publishing its 'Connected Nations – Summer Update 2023' report, the watchdog said that 52% of UK homes had access to full fiber as of May 2023, up

from a previously reported figure of 48% at January 2023. Meanwhile, Ofcom reported that gigabit-capable broadband services were available to more than 22.4 million homes, or 75% of the country total, as of May 2023, up from 21.9 million and 73%, respectively, at the start of 2023. With re-

gards to slower speeds, Ofcom said that superfast broadband – defined as offering downlink rates of at least 30Mbps – was available to 97% of UK homes, a figure unchanged since May 2022, for which date coverage of 96% was reported. Ofcom said that the lack of progress may be due to the 'additional difficulty in reaching the final 3% of properties' but suggested that more recent publicly funded schemes may improve this situation. Meanwhile, Ofcom said the number of properties (both residential and commercial) that could not receive a 'decent' broadband service (i.e., one offering download speeds of at least 10Mbps) from a fixed line totaled 428,000 (1.3%) as of May 2023, down marginally from 433,000 four months earlier. For the mobile sector, Ofcom notably reported that with regards to 5G, between 76% and 85% of premises (outdoor) were covered by at least one operator as of May 2023, up from between 54% and 69% a year earlier. The number of premises covered by all of the nation's operators remained low, however, standing at between 12% and 22% as of May 2023 (May-22: 5%-13%).



## FCC Approves Return of Unused 700MHz Choice license to IT&E; Telco Must Launch 4G by Nov-23, 5G by Nov-24

The Federal Communications Commission (FCC) has approved the return of an unused 700MHz license – vacated by Choice Phone (iConnect) in 2019 – to IT&E, which acquired iConnect in October 2020. The 700MHz Lower Band B-block license covering the Commonwealth of the Northern Mariana Islands (CNMI) was originally granted to Choice Phone in June 2008, but terminated in February 2019 due to the company's failure to fulfil FCC rollout requirements. As per Wireless Telecommunications Bureau (WTB) paperwork, IT&E submitted a request to have the license reinstated in June 2023, as it seeks to boost its existing 4G coverage and deploy 5G technology. The FCC assessed: 'The geography, extreme

remoteness, and corresponding lack of infrastructure in the CNMI create unique difficulties for the construction of the communications network. This group of islands is extremely remote –roughly 3,200 miles from Hawaii, which itself is 2,397 miles from the contiguous United States. This remoteness makes all aspects of infrastructure development more difficult. All radiofrequency equipment must be imported into the CNMI. Even before the pandemic, these equipment deliveries took roughly four weeks. Now, equipment deliveries can take four-six months. The declining economic environment in the CNMI also presents challenges for infrastructure investment. The CNMI has experienced year-to-year

GDP declines, population declines, and its median household income is less than half of the US average. In addition, the lack of skilled workers in the CNMI to implement base station upgrades and new site construction further complicates network construction. Taken together, these unique factors support grant of a waiver here.' In granting the waiver, the FCC has stipulated that IT&E must offer 4G connectivity using the 700MHz B-block license to 70% of the license area by 13 November 2023. Looking ahead, IT&E must provide 5G services to 10% of the CNMI's population by 13 November 2024 – with this figure rising to 30% population coverage by 13 May 2025. 📍



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