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DIGITAL HORIZON: Salam's Remarkable Transformation

AHMED AL ANQARI
CEO, Salam



**Global Impact, Regional
Brilliance: Telecom
Review's 17th Summit
Soars to Success**

**Wi-Fi 6: Enhancing
Businesses Through
Network Capacity,
Security and IoT**

**The Transparency
Gap: Concern Grows
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4



- Digital Horizon: Salam's Remarkable Transformation

12



- Saudi ICT Ecosystem: Public-Private Collaboration for Greener, Hyper-Connected Future

15



- BNET's Vision: Connecting Bahrain Through Innovation and Strategic Partnerships

17



- stc group: Bringing Innovative Possibilities to the Global Digital Landscape

- 19 Driving 5G Innovation and ESG Commitment: Nokia's Strategic Partnerships in the Region
- 21 Insights on Sustainability with e& Group CSO Harrison Lung
- 23 Regional Academic and ICT Experts Emphasize Vital ICT Talent Ecosystem
- 25 Navigating the AI Landscape: The Hybrid Approach

- 27 Standardization Day: ETSI Meets UAE
- 32 Global Impact, Regional Brilliance: Telecom Review's 17th Summit Soars to Success
- 65 Wi-Fi 6: Enhancing Businesses Through Network Capacity, Security and IoT
- 70 The Transparency Gap: Concern Grows for AI Users and Regulators



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Ahmed Al Anqari,
CEO, Salam

Digital Horizon: Salam's Remarkable Transformation

Aligned with the objectives of the Kingdom's Vision 2030 and the rapid pace of digital transformation, Ahmed Al Anqari, CEO of Salam, provided Telecom Review with exclusive insights into the intricacies of Salam's ascent. In the interview, he delved into the future prospects and details how the industry leader is propelling the concept of the 'digital lifestyle' forward.

In accordance with the digital transformation initiatives outlined in the Kingdom's Vision 2030, what steps is Salam taking to foster the development of a digital society?

Saudi Arabia's vision is to be the most connected and digitized nation by 2030. As one of the leading telecom providers, with one of the region's most extensive

telecom networks, Salam is strongly positioned to provide next-gen ICT solutions that this future requires. Thanks to the government's aggressive digital transformation initiative and cloud-first policy, demand for more capacity to host data is rising exponentially. That's why we are pre-provisioning assets and mapping out investments in more cloud and data center capacity and have expanded

fixed and wireless infrastructure to support the Kingdom's goals.

Today, we also offer the fastest fiber connections to the home; and mobile services that are making the always-on, always-connected lifestyle accessible for everyone. We are also growing our own 5G network. We're playing an active part in making 5G widely available to enable emerging

technologies like AI and IoT which is powering transformation in many smart cities being built today, and in the industrial, manufacturing, logistics, ecommerce and security space.

With its new brand, Salam transformed itself from a B2B telco to a 'full service, human-centered technology company that seamlessly connects not only businesses, but also people and things'. Can you elaborate on the new company's vision and mission?

Since 2005, Salam, formerly known as Integrated Telecom (ITC), has built a reputation as one of the Kingdom's leading B2B telecom providers, building one of the region's most extensive telecoms and IT infrastructures. Our owned infrastructure eventually positioned us to penetrate homes and digital lifestyles, helping Salam enter the B2C market and become one of the key growth leaders and innovation drivers in the Kingdom's ICT market.

Our new brand – Salam – was established to clearly signal our transformation from a B2B telco to a full service, human-centered technology company. Our new corporate theme, "Where you connect," reflects our commitment to seamlessly connect not only businesses, but also people and things. We are no longer just a telecoms company: we are a technology services company offering a full breadth of telecoms and technology solutions to connect people and businesses, enabling an infinitely connected world.

Salam has one of the region's most extensive telecom networks. How does this underlying strength differentiate you in the telecommunications sector?

Salam is a unique Saudi success story. We are a locally-founded Saudi company with our own high-capacity 19,000-km fiber network (Saudi National Fiber Network, SNFN) connecting all major cities in the Kingdom, as well as terrestrial gateways to key neighboring markets like Jordan, the UAE, Qatar, Bahrain, Kuwait, and Iraq and submarine cable landing stations in Al Khobar and Jeddah connecting us to the rest of the world.

We also operate several internationally certified data centers enabling us and

our partners to provide performant hosted and managed voice and data services. We have also built last-mile infrastructures enabling us to bring our services to homes and organizations everywhere including fiber-to-the-home (FTTH) and 5G fixed wireless services. And recently, we just launched Saudi Arabia's newest mobile carrier service, Salam Mobile. All these uniquely position us to grow our services and bring them closer to more customers in support of the Kingdom's digital transformation journey and Vision 2030 goals.

Salam is pioneering the first and only 1GBps fiber connection in Saudi Arabia. Can you tell us more about this? Why is Salam so far ahead when it comes to fiber connectivity?

Our extensive network uniquely positions Salam to bring the fastest connection to neighborhoods virtually everywhere, allowing us to offer the first and only 1 GBps fiber optic connection to homes in Saudi Arabia. That's twice the speed that our competitors can offer, but it's not just about speed. With our new managed experience approach, we're setting our customers free to experience a richer digital life without limits. And we're working to add



Our new corporate theme
"Where you connect"
reflects our commitment
to seamlessly connect not
only businesses





Salam Mobile is a new kind of mobile service aiming to change the Kingdom's mobile experience

more layers of digital experiences and services on top for gamers, streamers, and families everywhere.

Salam recently launched Saudi Arabia's newest mobile carrier service, Salam Mobile. How will it change the mobile experience in Saudi Arabia?

The launch of Salam Mobile fulfills our transformation from a telecoms company for business to a full telecoms and technology company with the full breadth of consumer telecom and digital lifestyle services. Salam Mobile is a new kind of mobile service aiming to change the Kingdom's mobile experience with simple plug-and-play plans, fair deals and an experience-led, human centered approach. Unlike our other MVNO competitors, Salam Mobile will benefit from Salam's extensive underlying network and Mawarid Group's vast entertainment, communication and technology ecosystem, giving customers an ever-growing palette of experiences to enrich their digital lifestyle. It is already our fastest-growing service.



How does Salam help businesses operate smarter, more digitally, more

integrated, and more secure? What specific services and solutions have you recently launched in the market?

Salam has built a reputation for making the business of our clients, our business, with highly trained specialists in every sector. Organizations have come to trust Salam to help them improve business operation, reduce cost, and enhance performance.

Our expanding range of next-generation solutions, continuous capacity expansion and non-stop investment in infrastructure, is helping customers meet rising backbone connectivity and international capacity needs as they tap into new opportunities. Expect more voice and international roaming traffic capacity, more competitive data sales to and from Saudi Arabia, more flexibility to adapt and scale data ecosystems, more international reach and connectivity and seamless peering with content, OTT and gaming networks around the world— all essential ingredients for today's new technology platforms, new digital lifestyles, smart cities, other Vision 2030 initiatives and the Kingdom's digital transformation journey towards 2030 and beyond.

Growth in connectivity demand and cloud and hosted data means expanded

threats. Salam has secured a niche in the market as a provider of essential cybersecurity services with its Security Device Management offering, a comprehensive solution covering design, implementation, monitoring, administration and support for firewalls, UTM and IPDS devices, email security, VAPT and Anti-DDoS services. Salam's cybersecurity services are designed to help organizations manage and optimize security technology infrastructure by reducing their overall risk, allowing them respond to threats more quickly, thus lowering overhead costs and improving operational efficiency by freeing up security staff to focus on other critical matters. This aspect of Salam's service offering will help us reach our objective of being an industry-leading operator enabling the Kingdom's digital transformation journey.

In addition, Salam also offers Security Information & Event Management (SIEM) solutions designed to help organizations collect, analyze and identify potential risks round-the-clock in real time. Salam provides advanced defence technologies, global threat intelligence, threat hunting, in-depth malware analysis and forensics, periodic cyberwar games and other incident response techniques and continuous vulnerability assessments of infrastructure, data, applications and users.

Historically, Salam has retained a strong presence in Saudi Arabia. What are your thoughts on the country's evolving business landscape and its potential for growth and development?

We are excited about the developments and potential in the sector powered by Saudi Arabia's digital transformation. The Kingdom's technology market is worth over USD 40 billion, the largest in the region. The Kingdom is spending USD 1.2 billion to improve the digital skills of 100,000 Saudi youth by 2030 with a focus on programming, AI, cybersecurity and gaming. Indeed, the Kingdom is in the best position to achieve its goal to be the most connected and digitized nation by 2030, and at Salam, we're eager to play our part. We are expanding our portfolio, expanding our network, working with



leading global technology partners and our own innovation teams, to open new frontiers in telecommunications and smart systems that we need today and tomorrow.

Could you provide some insights into Salam's growth strategy? Which business sectors are presently the focus of your expansion efforts and growth strategies in the market?

We believe that we are not just in the telecommunications business. We are in the digital lifestyle business. Our core mission is to make these emerging digital lifestyle choices more accessible for everyone, every day. Our customers don't really understand technology and don't care. All they want is to be able to connect with everything and everyone they love seamlessly, affordably, on any of their devices. That's why we're focused on bringing all the technology, network and content we offer into one converged Salam experience that is so simple, so seamless, our customers

no longer see the technology, just the richer digital life they can enjoy— with all its possibilities.

That's why we're constantly working to make life easier with simple, affordable, easy-to-choose plans curated with features and add-ons to match every digital lifestyle. And we want our customers to enjoy these new experiences and solutions not only in the distant future, but today. We are already rolling out new, fully-curated products as we speak, with more coming soon.

In addition, together with strategic partners like Rakuten and Oracle, we have activated a future-ready digital strategy which dramatically extends our digital capabilities and gives us the agility to launch, orchestrate and scale new offerings as market expectations and technology evolves— all while delivering excellent customer experience. It's all part of

our goal to be at the center of today's digital transformation and place our customers at the heart of a seamlessly connected world.

In the background, we are also making fundamental changes so we can focus even more on anticipating what our customers need. As part of our strategic transformation into a more customer-centric and experience-rich company, we have started streamlining our core operations. We have just moved all our underlying infrastructure to a dedicated sister company within the Mawarid Group, which will be focused on managing, strengthening and expanding our underlying network, such as growing and deploying our 5G network. Today, this is allowing us to be truly you-centric, freeing us to focus more on our customers and serve them with even greater agility, higher availability, deeper collaboration and more innovative products.

Salam just launched the G4M3R_PCK, the Kingdom's first dedicated gamer pack with the potential to transform the gaming experience in Saudi Arabia. Can you elaborate on the potential of this segment?

Explosive growth in video gaming, coupled with changing dynamics in traditional revenue and ARPU for telcos, is putting a focus on gamers as a new growth frontier. Today, some 65% of the Kingdom's population can be considered gamers, a vast segment straddling various age groups who play every day. With our underlying network, Salam is best positioned to deliver true, real-time, low latency gaming. That's why our new gamer pack is literally a game changer. It's the first and only dedicated gamer package in the Kingdom with a free professional grade Nighthawk Netgear router (used by hard core gamers), 300 Mbps speeds, a dedicated port for each gamer at the back-end, a free YouTube Premium subscription, plus, dedicated 24-hour gamer support— all part of our goal to deliver fully-managed and richer experiences and not just high-speed connectivity like our competitors.

The company has recently announced a strategic collaboration with Oracle: can you shed some light on the

nature of this cooperation? How will it enable Salam's business efficiency while empowering new growth opportunities?

Having powerful, next-generation applications that enable us to operate more efficiently and tap new growth opportunities swiftly is critical. That's why we have formed a strategic partnership with Oracle, the world's largest software and cloud infrastructure company.

With Oracle's market-leading monetization and unified operations solutions, combined with Oracle CRM Sales, we will have a future-ready digital strategy which dramatically extends our digital capabilities and gives us the agility to launch, orchestrate and monetize new offerings as market opportunities arise— all while delivering an excellent customer experience.

It's all part of our goal to be at the center of today's digital transformation and place our customers at the heart of a seamlessly connected world.

What notable partnerships does Salam currently engage in to strengthen its operations and digital infrastructure?

We have recently forged a strategic alliance with Rakuten Symphony. This is a partnership with huge potential, not only for Salam but for our customers. Our partnership with Rakuten will power Salam's ambition to significantly transform our mobile offering with richer experiences across every category. It will enable us to open new possibilities for Saudi Arabia's digital generation and place Salam at the forefront of the Kingdom's digital transformation.

As you know, Open RAN (Open Radio Access Network) is a more open and flexible way to build mobile networks. This partnership will lay the foundation for Salam to have access to Rakuten Symphony's state-of-the-art software, hardware, service delivery platforms and managed services especially in strategic Salam growth areas including e-commerce, Fintech, gaming, streaming, digital content, OTT platforms, the metaverse, Big

Data and Artificial Intelligence. This will allow us to benefit from Rakuten Symphony's expertise and services, which will ultimately support our growth ambitions not only within our home Saudi market but across the wider GCC region. The possibilities and potential that this opens for us are truly immense and far-reaching.

Salam has a strong focus on customer satisfaction. What strategies and practices does the company employ to ensure that customers receive the best possible experience?

We have made a strategic shift from network/resource-centric operations to a more customer-centric model. As part of our strategic transformation into a more customer-centric and experience-rich company, we have streamlined our core operations. For example, we have moved the management and development of our underlying infrastructure to a dedicated sister company. This allows us to be truly you-centric, freeing us to focus more on our customers and serve them with even greater agility, higher availability, deeper collaboration and more innovative products.

We have also launched the Customer Excellence Program, a new data-driven and coordinated approach to deliver superior customer experience at every stage of the customer journey. Meanwhile, the Customer Experience Management Program was also launched as a dedicated program to manage every customer relationship, from onboarding to service delivery to total customer care and retention.

The Saudi telecoms sector is growing rapidly as new players enter the region's largest telecoms market. What differentiates Salam?

Many new players are entering the Saudi market, all of them foreign brands, which again makes Salam truly unique and proudly inspiring. Unlike our direct competitors, we are a true home-grown Saudi success story, built on years of heritage, strong network foundations, and deep local roots. We are testament of what an innovative local company can achieve in this market. We are proud of this heritage and the rapidly growing role we play in



Saudi Arabia's digital transformation—and we are here to stay.

What are Salam's key priorities for 2024?

This year, we aim to fully complete our transition to a human-centered B2B and B2C company. For B2B, we will continue our transformation from a telco to a full technology company, increasing our capabilities in cybersecurity, cloud computing and IoT as we continue to be a partner in the Kingdom's digital transformation journey. For B2C, we continue to redefine home connectivity, redesigning our products to add even further layers of features and experiences. On the mobile service side, we will continue to grow our offering to provide attractive alternatives to our existing as well as other innovation-focused customers. Together, these steps will enable us to fulfil our mission to establish Salam as one of Saudi Arabia's leading full-service ICT players.

Ahmed Al Anqari has more than 20 years of experience in the Saudi

technology and telecommunications sector. Al Anqari began his career in the power sector as a computer engineer for the Saudi Electric Company (SEC) and as a network expert with the Saudi Telecom Company (STC). In 2006, he was appointed Vice President for Engineering of Integrated Telecom (ITC), joining a leadership team which transformed ITC from a telecommunications start-up to an industry leader in Saudi Arabia by developing one of the region's most established networks. In 2020, he was appointed Chief Technology Officer of ITC as the company expanded its fast-growing consumer business. ITC rebranded in 2021 as Salam and launched the Kingdom's newest mobile carrier service. In the same year, Ahmed Al Anqari was appointed CEO of Salam, launching a new era of an already distinguished 16-year journey for the tech veteran.

Under Al Anqari's leadership, Salam continues to surge and is poised to advance further by championing digital transformation in a market rife with opportunities. **TR**



We have made a strategic shift from network/resource-centric operations to a more customer-centric model



TDRA Wraps Up ITU WRC-23 With Resounding Success and Achievements



The Telecommunications and Digital Government Regulatory Authority (TDRA) has officially concluded the World Radiocommunication Conference (WRC-23), hosted by the UAE at the Dubai World Trade Center, which took place from November 20 to December 15, 2023.

WRC-23 marked a truly global collaboration, with over 4,900 government officials from 193 countries and the participation of 900 international organizations, universities, and companies worldwide.

Commenting on the successful conclusion of the conference, H.E. Talal Humaid Belhouli, Chairman of TDRA Board of Directors, said, "This year's conference underscored the strong collaboration among nations, emphasizing the pivotal role of international cooperation in shaping the future of the telecommunications sector. It highlighted that teamwork and a shared vision are indispensable for navigating the complexities of global digital governance. All the decisions and agreements reached during the conclusion of the WRC-23 will pave the way for equitable access to digital technologies, bridging divides, and opening new opportunities for all."

In turn, commenting on the conclusion of the conference, H.E. Eng. Majed Sultan Al Mesmar, TDRA Director General, said, "Hosting the WRC-23 in the UAE reflects its position as a hub for significant global events, serving as key decision-making

centers for issues critical to the future of humanity...The UAE's focus on the telecom sector, evident from the early emphasis on infrastructure to its evolution into electronic and then digital governance, has played a key role in shaping its current achievements, including space exploration, digital government, and more."

H.E. Eng. Mohammed Al Ramsi, TDRA Deputy Director General and Chairman of WRC-23, said, "The conference has set the groundwork for a new chapter in the distinguished relationship between the UAE and the ITU, marking another success story in the UAE's global endeavors, reflecting its global mission and significant contributions to advancing international cooperation across various fields, particularly in the radiocommunications sector, which serves as the backbone of smart cities and is an essential component for the success of Internet of Things technologies."

Rising Adoption of Mobile Data Leads to Revenue Growth in Saudi Arabia



The total mobile services revenue in the Kingdom of Saudi Arabia is set to increase at a compound annual growth rate (CAGR) of 6.3% from USD 12.7 billion in 2023 to USD 17.3 billion in 2028, mainly due to the rising adoption of mobile data services.

As per the Saudi Arabia Mobile Broadband Forecast by GlobalData in Q3 2023, there is a projected decline in mobile voice service revenue at a

CAGR of 3.2% (from 2023 to 2028), aligning with a decrease in mobile voice ARPU levels. Conversely, mobile data service revenue is anticipated to experience the fastest growth, with a CAGR of 9.6%, driven by the increasing adoption of 5G services.

The expected rise in average monthly mobile data usage, from 44.3 GB in 2023 to 89.8 GB in 2028, is fueled by an increasing demand for high-bandwidth online video services and social media content accessed through smartphones. This trend is further propelled by data-centric plans provided by operators.

For instance, Zain KSA is offering an additional 150GB of social media data to access apps like Youtube and Facebook along with a 150GB prepaid mobile internet plan.

According to a telecommunications analyst, 4G is anticipated to remain the primary mobile technology in terms of subscriptions in Saudi Arabia until the year 2025. After three years, 5G subscriptions will surpass 4G subscriptions and will account for an 84% share of the total mobile subscriptions in 2028, driven by the 5G network expansion initiatives of the telecom regulator and mobile operators.

Saudi Telecom Company (stc) led the mobile services market in Saudi Arabia (in terms of mobile subscriptions) in 2023, followed by Mobily. stc is expected to retain its leading position through 2028, primarily driven by its strong focus on accelerating the expansion of 5G services and exploring opportunities within the M2M/IoT segment.

local expertise with global horizons

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in the latest systems and technologies



Saudi ICT Ecosystem: Public-Private Collaboration for Greener, Hyper-Connected Future



Rayan Alturki

Chief Communication Officer



Naif Sheshah

Assistant Deputy Governor for Planning and Development

As a driving force in the nationwide digital transformation and a key player in sustainability, the Saudi ICT sector plays a vital role in supporting the Kingdom in achieving the Saudi Green Initiative's (SGI) goal to reach Net Zero by 2060. Guided by this inspiring roadmap, the Kingdom is transitioning towards a sustainable future.

Saudi Vision 2030 has inspired policies that intersect with the UN's Sustainable Development Goals (SDGs). Demonstrating its commitment to enhancing connectivity and diversifying the economy's energy mix, the ICT industry continues to leverage partnerships with the private sector to accelerate the transition. Through their sustainability-first strategy, Zain KSA is at the center of this dynamic ICT ecosystem, leveraging eco-friendly business practices and championing tech for sustainability. Additionally, this fostering spirit will have a cascading effect in supporting the Middle East Green Initiative on its journey to "mitigate the impact of climate change on the region, and to collaborate to meet global climate targets."

Telecom Review had an exclusive interview with Zain KSA's CCO Rayan Al-Turki and CST's Assistant Deputy Governor for Planning and Development & Chief Digital Officer Naif Sheshah, both of whom shed light on Saudi Arabia's ICT roadmap for sustainable development and growth.

How does the Saudi ICT sector model and leverage strategic partnerships to drive sustainability efforts?

CST's Naif Sheshah: The ICT sector has driven innovative businesses, contributed to environmental sustainability, attracted investments in science and education, and facilitated advancements in healthcare, education, and job creation, enriching lives across the Kingdom.

The surging demand for connectivity is fueling energy consumption, posing

critical environmental threats like rising emissions. To address this, the Saudi ICT industry adopted legacy infrastructure, promoting energy-efficient technologies to achieve net zero. The public and private sectors synchronized sustainability efforts in alignment with Vision 2030's target to increase private sector contribution to GDP to 65%. Mapping each sector's role in reaching net zero, the ICT industry made significant steps towards sustainability, minimizing direct and indirect emissions through reduction, reuse, and removal efforts.

Paving the way for green ICT, the Kingdom plans to invest USD 186.6 billion, targeting net zero emission and boosting job creation. By March 2023, 65 digital innovation labs had empowered 26,000 beneficiaries through sustainable innovation across industries.

As a prominent digital provider and innovator, how is Zain KSA leveraging its advanced tech capabilities to set new standards in sustainable development?

Zain KSA's Rayan Al-Turki: Fueled by Vision 2030's digital blueprint, Zain KSA is championing digital inclusivity and environmental sustainability by deploying cutting-edge infrastructure to match the pace of innovation in the Kingdom. We have evolved our strategy from pioneering and upgrading advanced 5G networks in the Kingdom to exploring and integrating more eco-friendly infrastructure technologies with the goal of reducing carbon emissions.

Contributing to ecology preservation, our pioneering project with Red Sea Global (RSG) resulted in the launch of the first zero-emission 5G network, worldwide. The project prioritizes three key goals: preserving the environment during setup, minimizing operational emissions, and mitigating visual disruption. Fully aware of the importance of preserving biodiversity in the Red Sea ecosystem, Zain KSA is engineering cutting-edge tower technologies through a sustainable network model that leverages the 750,000-panel solar farm installed by RSG.

Prioritizing green choices, we made EV charging stations accessible to 10,000 employees and joined CST's e-waste recycling initiative, involving 100,000+ devices.

Zain KSA's sustainable commitment extends to bridging the digital divide in remote communities. Diversity, equity, and inclusion (DEI) are part of our company DNA. As is empowering women in STEM fields through our Women in Tech program, with over 4900+ applicants and 250 graduates from across all 3 editions. Through Zain KSA's Tamam microloans, we offer vital financial tools, fostering inclusion.

Furthermore, we invest in building local talent and content. Zain KSA achieved a milestone in talent localization by earning the HRSD Labor Award 2023 for contributing to developing the

national workforce. Prioritizing robust governance, we have earned an 'A' rating on the MSCI ESG Index. We are also proud of the fact that we continue to maintain a prestigious CDP Rating of 'A' after Zain ranked highest among telecom operators in the Middle East and Africa in the category of tackling climate change on the Carbon Disclosure Project (CDP) global index in 2021.

As a regulator, how do you see digital innovations complementing sustainability practices in the Kingdom? And how is that driving a digital economy?

Naif Sheshah: To ensure technology is leveraged to serve our sustainability goals, CST has adopted the 'C.I.R.C.L.E' framework: Cutting-Edge Infrastructure, Innovation, Renewable Energy, Circular Economy, Leading Cities, and Equality and Inclusion.

ICT intersects with different sectors, empowering them to achieve sustainability goals and driving stakeholders towards a green ecosystem through digital transformation. MCIT has launched initiatives, including expanding broadband coverage, to connect homes with optic fiber and cover remote areas.

Beyond data, the sector tackles challenges of water scarcity and carbon emissions. The deployment of 10 million smart meters by the Ministry of Energy empowered residents to manage energy usage, slashing household consumption by 15%. Similarly, advanced desalination technologies cut power usage by 14,000 tons.

We believe a healthy environment and a healthy economy go together. The Kingdom commits to a holistic approach to sustainability, prioritizing circularity by optimizing resource utilization, minimizing waste, and maximizing value. This goal is backed by a SAR 120 billion investment in circular economy, propelled by digital innovation. Driving economic sustainability, modern technologies and AI functionalities have resulted in significant savings and revenue

opportunities for government entities, amounting to USD 13.6 billion.

Through the Emerging Technologies Sandbox, we empower ICT innovators to pilot new technologies. The initiative has, so far, brought 87 Saudi-made tech products. MCIT also has several capacity-building initiatives to support the talent needed to build a digital economy and foster a knowledge-based society.

How does Zain KSA envision the private sector's contribution to the future of sustainable tech in Saudi Arabia?

Rayan Al-Turki: The future of sustainable technology appears promising, marked by a shift towards eco-friendly solutions. Saudi Arabia's investment of SAR 120 billion from 2023 to 2035 signifies a robust dedication to circularity. Cutting-edge technologies such as 5G, AI, and IoT are propelling energy efficiency and productivity, notably in industrial zones and smart cities.



ICT intersects with different sectors, empowering them to achieve sustainability goals and driving stakeholders towards a green ecosystem through digital transformation



Zain KSA balances progress with environmental responsibility, focusing on climate change, inclusion, empowering the youth, and adopting responsible business practices. Building on our initiatives and practices within the framework of environmental and social responsibility and effective governance, we will continue to seek out partnerships with like-minded industry players who place a premium on sustainability and a shared vision to make the world a better place.

As partners in Saudi Arabia's sustainable future, we are committed to playing our role in the national fight against climate change. Our commitment aligns with SGI's goals, especially in accelerating the green transition and investing in the Circular Carbon Economy (CCE). Our approach targets initiatives that blend innovation with environmental responsibility, leveraging our role as enablers of nationwide digitalization to drive the shift to digital operations for a variety of enterprises and governmental entities, and supporting the lifestyles of climate-conscious consumers.

We also recognize our role in building a skilled workforce and supporting tech localization through talent building efforts and training programs designed to create a collective mindfulness of environmental impact and social value.

Another pivotal element of our strategy involves empowering the youth of tomorrow with green skills through our ZY (Zain Youth) initiative. ZY, a component within our DEI pillar, is tailored for individuals aged 18 to 27, preparing them for professional life while encouraging resilience in the face of uncertainty. ZY is accessible to employees, university students, and the general public. This initiative is specifically designed to hone green skills, recognizing our crucial role in providing the younger generation with the knowledge and tools to address the impacts of climate change.

To support inclusion, we aim to bridge the digital divide by providing tools for underserved communities' development and actively promote



workforce diversity, with a focus on female empowerment. Initiatives will target digital literacy among children and address youth unemployment.

Through such endeavors, Zain KSA will continue to drive innovation to support the Kingdom's sustainability efforts and realize the objectives of Saudi Vision 2030, in line with our corporate sustainability strategy, and supporting our goal of being a trusted partner in the Kingdom's digital economy and knowledge-based society.

Based on your successful ESG experience, how can the private sector leverage ESG for growth?

Rayan Al-Turki: Saudi Arabia stands at the forefront of the digital revolution, a thriving community driven by cutting-edge technologies that's committed to sustainability. The collaboration of ESG stakeholders is pivotal and businesses need to place more value on the long-term gains of their green investments. Zain KSA sees a great opportunity in committing to responsible growth, not only in ICT but across diverse industries. This is a chance for the private sector to lead KSA's smart future, characterized by enhanced lifestyles and a healthy planet. **TR**



Zain KSA balances progress with environmental responsibility, focusing on climate change, inclusion, empowering the youth, and adopting responsible business practices





Dr. Mohamed Tayeb Mahmood, Acting Chief Technical Officer, BNET

BNET's Vision: Connecting Bahrain Through Innovation and Strategic Partnerships

Telecom Review had the opportunity to interview Dr. Mohamed Tayeb Mahmood, the Acting Chief Technical Officer of BNET, Bahrain's national broadband network. During this interview, Mahmood illuminated how BNET is embodying its vision of connecting the entire community, emphasizing the pivotal role of strategic partnerships in accelerating programs that enhance customer experience. He also discussed the innovative technologies incorporated into BNET's network operations and the impact of increased fiber speeds on business and household consumers.

Pioneering a Prosperous Community

When queried about BNET's approach to realizing its vision of a thriving and interconnected community, Mahmood underscored the central goals of the fiber infrastructure deployment. He expressed pride in the accomplishment of establishing connectivity for 95% of households and 100% of businesses. This achievement is marked by the provision of affordable, reliable, and secure ultra-fast broadband services. "BNET has been targeting thousands of new addresses every year, resulting in around 60,000 new residences being connected to fiber this year alone," said Mahmood. In addition, BNET has published a Reference Offer (RO) that includes affordable and accessible products and services for everyone. He said, "At BNET, we're driven by eight core pillars, including customer centricity, connecting our community, and excellence driven. These objectives are the backbone of our vision— A prosperous community where everyone is connected."

Leveraging Strategic Partnerships to Enhance Customer Experience

Regarding strategic partnerships in enhancing customer experience programs, Mahmood explained that BNET works closely with licensed operators to continuously improve its products and services. They collaborate with contractors, technology vendors, suppliers, and consultancy firms to ensure the growth and maintenance of their fiber-based network. Mahmood emphasized that everything they do revolves around their customers and the success of their customers is linked to the support they receive from strategic partners. He said, "Before embarking on any initiatives, we will ask ourselves, 'How will it benefit our customers?', 'Will it enable them to expand their business?', 'Will they be able to improve the experiences of their customers?' The success of our customers is closely linked to the support we receive from our strategic partners."

Meeting Connectivity Demands

In terms of meeting the high demand for connectivity in Bahrain and empowering ISPs, Mahmood highlighted that BNET provides licensed operators with various access approaches to develop optical fiber services. They have established a robust and reliable IP+OTN network to ensure network services protection and fulfill future high-speed bandwidth demands. BNET offers wholesale broadband services and related products on a non-discriminatory basis, fostering competition and innovation while providing greater choices for customers in Bahrain.

Technology Integration

Mahmood highlighted several cutting-edge technologies integrated into BNET's network operations. These advancements include 50GPON technology, designed to accommodate high-speed services exceeding 10Gbps and support the growing number of Giga users. Additionally, there's the implementation of FTTR to ensure top-notch home broadband services, digital mapping for a visual representation of network devices and KPIs, CDF-ROADM for the modernization of OTN nodes, enabling flexible network expansion. The adoption of IP+Optical topology enhances service protection reliability, and the utilization of AUTIN serves as a highly integrated O&M platform for efficient problem resolution.

Fiber Speeds Improve Customer Satisfaction

Lastly, when discussing the impact of increased fiber speeds, Mahmood highlighted the significant improvement in customer experience and satisfaction. BNET has increased fiber speeds in Bahrain by 3.75x over the last three years. This improvement has contributed to an increased GDP and benefited both governmental organizations and businesses, as well as residential users. Mahmood affirmed BNET's unwavering commitment to embracing the most recent technologies and delivering state-of-the-art products and services to its customers. Mahmood

emphasized that, "Bahrain's ranking improved from 88 in the beginning of 2023 to 61 by the end of 2023, this demonstrates that we are on the right track."

Throughout this interview, it became clear that BNET is steadfast in pursuing its vision of a connected community. Through strategic partnerships, the incorporation of innovative technologies, and a relentless focus on customer satisfaction, BNET is actively spearheading the transformation of Bahrain's telecommunications landscape. 



At BNET, we're driven by eight core pillars, including customer centricity, connecting our community, and excellence driven





Haithem Mohammed Alfaraj, Chief Technology Officer (CTO), stc group

stc group: Bringing Innovative Possibilities to the Global Digital Landscape

In the era of digital transformation, stc group has emerged as a driving force, propelling the ICT sector forward with its robust digital infrastructure, cloud computing, and advancements in cybersecurity, IoT, AI, digital payments, and digital entertainment. Haithem Mohammed Alfaraj, the Chief Technology Officer (CTO) of stc group, sheds light on the core competencies that have fueled the group's success and the strategies employed to achieve significant milestones.

DARE Strategy as a Digital Transformation Catalyst

At the heart of success lies the group's DARE strategy, which stands for Digitalizing stc, Accelerating core asset performance, Reinventing customer experience at world-class standards, and Expanding scale and scope. This strategic framework has been instrumental in streamlining our digital transformation process, enabling innovation, enhancing customer experiences, and extending network coverage beyond conventional limits. "Through the implementation of DARE, we have not only focused on digitalizing our operations but also reinvented customer experiences, setting world-class standards," explains Haithem Mohammed Alfaraj.

"Our commitment to the DARE strategy has positioned stc group as the go-to provider for all digital needs in the modern era, keeping us ahead of technological advancements locally and globally." The group has expanded our scale and scope by embracing digital transformation in every aspect of its operations, ensuring

a comprehensive approach towards digital services.

5G Network Expansion: Charting Future Road Maps

Staying at the forefront of connectivity, stc group has achieved a remarkable 90% service coverage in major cities with its 5G network. This extensive expansion, covering over 75 cities and governorates in the Kingdom, is a result of our continuous efforts in implementing pioneering 5G technologies. "Our strategic initiative aims to modernize infrastructure, providing greater robustness and sophistication to significantly enhance user experiences. The 5G network, being the foundation for the Fourth Industrial Revolution, IoT, AI, and machine learning, aligns with our commitment to fostering the digital economy, stimulating local content, and generating high-quality employment opportunities," notes Haithem Mohammed Alfaraj.

"Our investments will aid in expanding and developing the network, fostering the digital economy, stimulating local content, generating high-quality employment opportunities, and digitally enhancing people's lives," he adds.

Commitment Towards a Green Evolution

Recognizing the global importance of energy efficiency and sustainability, stc group has pledged to achieve complete decarbonization by 2050. The group's "green evolution roadmap" outlines a detailed plan to reduce climate change impact and achieve Net-Zero carbon emissions. By adopting Science Based Targets and aligning with the Paris Agreement, it is committed to significant reductions in carbon emissions, embracing the Network Carbon Intensity Energy (NCIe) indicator to monitor and optimize energy usage. "By adopting the NCIe indicator, we can effectively measure our carbon footprint and reduce our environmental impact," observes Haithem Mohammed Alfaraj.

Large-scale green initiatives, including solar energy facilities in the NEOM region, showcase our dedication to sustainability. The "Let's Make Green" initiative is committed to planting one million trees by 2030. In 2022, the group's subsidiary, TAWAL, which manages the telecom towers, maintained ISO 14001:2015 certification for environmental management system, with a 20% reduction in greenhouse gas emissions.

and more than 30% cumulative emissions reduction since the company's establishment.

Pioneering the 5.5G Technology Advancement

As a forerunner in technological innovation, stc group is leading the implementation of 5.5G technology – the next frontier in connectivity. Through strategic partnerships and trials, including the first-ever 50G PON in the Middle East, stc is poised to lead the digital and telecommunications industry, providing advanced and high-speed connectivity solutions. "As part of our commitment to innovation, the group has entered a strategic partnership agreement with its associates to incorporate and test the 5.5G technology, such as 10Gbps throughput, 50G PON, and other emerging technologies, says Haithem Mohammed Alfaraj. The group's commitment to innovation is evident in achieving global firsts, such as the 4CC Test and significant technological advancements like the 50G PON trial. It has achieved groundbreaking feats like 10Gbps speed in 5G mmWave trials. Such connectivity speed is crucial for the adoption of technologies such as AI, IoT, Edge computing to accelerate autonomous operations in various industry sectors, such as smart airport, smart ports, smart logistics and so on.

Driving Innovation and Growth

With a mission to lead the digital evolution globally, stc group focuses on sustaining development efforts, achieving global leadership in ICT infrastructure, ensuring operational excellence, enabling and accelerating business innovation, and prioritizing green evolution and sustainability. By investing in AI infrastructure, stc aims to improve operational efficiency and enhance customer experiences through data-driven solutions. stc leverages big data analytics to provide actionable ideas and systems that facilitate reduction in energy consumption and implementation of green solutions, encouraging stakeholders, including customers and community individuals, towards better environmental responsibility. Moreover, stc group recently acquired a 9.9% stake in Telefonica Group for SAR 8.5

billion. Telefonica is one of the largest telecommunications companies in the world with a presence in major markets like Spain, Germany, Britain, and Brazil. This investment aligns with the group's ambitious expansion and sustainable growth strategy, which has resulted in numerous investments in ICT sector whether locally or internationally. stc Group achieved its highest-ever revenues for the 9 months reaching SAR 54.61 billion with an increase of 9.10%, and it distributes SAR 0.40 per share dividends for the 3rd quarter of 2023. "We recognize that without delivering the necessary products and services, our innovative and rapidly evolving ideas will remain just ideas. We aim to transform these ideas into dependable, life-improving, life-altering products and services. In pursuit of this, several key factors are pivotal to our strategy," opines Haithem Mohammed Alfaraj.

Digital Transformation Beyond Boundaries

In addressing the digital requirements of global markets, stc group is well-positioned with advanced technology, innovation, and a strong network infrastructure. While challenges such as talent scarcity, evolving customer needs, and cybersecurity exist, proactive talent development initiatives, cutting-edge AI tools, and resilient cybersecurity measures are in place to navigate these challenges. The rapid growth of digital technology has significantly transformed the cybersecurity landscape, requiring a more thorough and resilient approach to safeguarding data.

The group has been globally recognized for its commitment to effectively combat fraud and maintain the highest standards in the field of communication security. The group is the proud recipient of a global compliance certificate for battling fraudulent activities in its networks, highlighting its role in reducing fraud and encouraging other telecom sectors to participate in these efforts. Moreover, the group's subsidiary, "sirar by stc" was ranked first place in the Middle East and North Africa, and eleventh place globally among the top 250 providers of cybersecurity services in the "MSSP Alert" list. stc continues its

efforts to adapt best practices to ensure secure and reliable communication services for customers, stakeholders, and the community. "stc group's exceptional operational efficiency in the digital age sets a high standard for the telecommunications industry. The opportunities for transformation are vast, and stc group is committed to delivering progressive solutions that align with global digital development goals," notes Haithem Mohammed Alfaraj.

Mega Projects Demonstrating Innovation

A testament to our commitment to innovation is the provision of one of the largest indoor coverage solutions to the King Abdulaziz Endowment in Makkah. Through deploying communication towers, antennas, small picocells, and advanced digital technologies, we ensure seamless and reliable communication experiences for all within the endowment, aligning with the aspirations of Saudi Vision 2030.

"This commitment highlights stc group's dedication to ensuring seamless and reliable communication experiences for all within the King Abdulaziz Endowment," notes Haithem Mohammed Alfaraj.

In November, stc group signed a strategic partnership with Red Sea Global (RSG) to facilitate digital transformation and empower tourist destinations along the Red Sea coast by adopting state-of-the-art communication technologies and digital services, focusing on seamless and sustained connectivity services. Red Sea Global is the developer behind some of the largest tourism projects launched by the Kingdom as part of its ambitious Vision 2030, which seeks to diversify the economy and create new investment opportunities.

"As stc group continues to be a driving force of digital transformation, our dedication to innovation, sustainability, and global leadership remains unwavering. We look forward to shaping the future of digital connectivity and empowerment on both regional and global levels," reaffirms Haithem Mohammed Alfaraj. 



Mikko Lavanti, Senior VP of Mobile Networks, Nokia MEA

Driving 5G Innovation and ESG Commitment: Nokia's Strategic Partnerships in the Region

In an exclusive interview with Telecom Review, Mikko Lavanti, Senior VP of Mobile Networks, MEA, discussed Nokia's collaboration on environmental, social, and governance (ESG) initiatives, its strategic partnerships with telecom operators for delivering 5G services, and the company's key priorities in the MEA region. This interview took place during the 17th edition of the Telecom Review Leaders' Summit.

How is Nokia collaborating in the region with customers on ESG Topics?

As we find ourselves in the midst of COP 28 this year at the Telecom Review Summit, earlier this week, we hosted our first-ever Middle East Africa Nokia ESG Customer Council. Nine of the leading customers participated in our sessions, showcasing excellent examples of cooperation.

We were also joined by the United Nations' female enabling programs. Collaborating with them, we launched a female leadership program, bringing together female leaders from Nokia and e&, globally. The feedback I received from them about the opportunity to work together was exceptionally positive.

We have established various collaborations, such as working with our AVA AI/ML solution to save energy with Safaricom. Additionally, we have undertaken numerous projects related to circular economics with various customers. This week has reaffirmed the strength of our cooperation, emphasizing that together, we must drive this industry forward. As we say at Nokia: "There is no green without digital."

Please tell us about Nokia's strategic partnership with telecom operators to provide 5G services, especially private wireless networks, to its valued customers.

5G is of paramount importance for business and is experiencing significant growth in the gulf area. Africa and the rest of the region are expected to follow suit. Typically, use cases

commence with fixed wireless access, a domain in which we have been actively involved, with many customers. However, the most substantial use cases will undoubtedly revolve around private enterprises. Consequently, we are engaged in various initiatives with multiple customers in the region, particularly in verticals like mining. We are collaborating to construct Nokia's cutting-edge 5G private wireless network solution tailored for example for oil & gas, transport including harbours, mining industry and public safety to mention some of the verticals.


What are your key priorities in MEA for Nokia Mobile networks?

We've had an outstanding year in the Middle East and Africa, particularly in the mobile networks sector. We secured several wins with prominent mobile network providers, including MTN in South Africa, Zain and Orange in Jordan, and a successful collaboration in KSA with leading customers.

Our priority moving forward is to sustain and expand our business. We firmly believe that success is not only tied to technology but also extends to crucial areas such as health and safety. These are key themes that we prioritize. For instance, in partnership with MTN, we've committed to training students with a Finnish University as part of our initiatives. Our focus will persist in advancing technology, enhancing environmental, health, and safety standards, promoting energy conservation, and introducing our diverse portfolio of solutions.

In summary, Nokia's commitment to ESG collaboration in MEA is evident through initiatives like the Nokia ESG Customer Council, showcasing successful partnerships and sustainability efforts. In the realm of

5G services, Nokia's strategic focus on private wireless networks with telecom operators positions it as a technological leader, actively shaping the digital landscape in the region.

Looking forward, Nokia's key priorities in MEA's mobile networks sector include sustained growth, technological advancement, and a holistic approach to areas such as health, safety and environmental conservation. The company's successes with major providers underscore its dedication to business expansion and positive impact in the MEA region. 



Our priority moving forward is to sustain and expand our business





Insights on Sustainability with e& Group CSO Harrison Lung

In an exclusive interview, Harrison Lung, Group Chief Strategy Officer, e&, provided valuable insights into e&'s sustainability strategy, the impact of their telco-to-techco transition, the strategic importance of the MENA region, and the core areas of focus for e& in the future.

Can you give an overview of e&'s sustainability strategy? What are the criteria for a successful sustainability strategy?

Sustainability is at the core of everything we do. It is one of the four pillars of our strategy, driving sustainability. Within this strategy, we have implemented key programs and initiatives across the ESG pillars.

In terms of the environment, we have several initiatives and programs aimed at reducing carbon emissions in our overall fleet and network. As for the social aspect, we have programs focused on gender diversity and empowering individuals with disabilities. Additionally, we are utilizing computer science and coding to educate our youth. We have implemented processes to effectively manage our operations in these areas.

As you can see, sustainability is integrated across our organization, and these key initiatives are embedded in our overall strategy.

e&'s telco-to-techco transition is a pioneering approach. After one year, what has been the biggest impact of e&'s rebranding on the company's performance?

e&'s rebranding journey last year was truly transformative. Not only did we successfully evolve our brand from Etisalat to e&, but we also underwent a reorganization into a group holding structure. This structure consists of four key operating units, ranging from our primary operating unit in the UAE to our international markets, which span across 15 countries. Additionally, we have e& enterprise, which focuses on providing B2B

technology services, and our newest addition, e& life, which caters to the digital consumer segment.

With all these entities now in place, we have experienced tremendous market success. We have strategically leveraged our core telco business while simultaneously expanding into new digital ventures within adjacent markets and new geographies. This approach has allowed us to not only strengthen our existing business but also explore exciting opportunities for growth.

From your perspective, why is MENA a strategic location for growth and expansion?

The MENA region holds significant importance as a key pillar for growth and expansion for e& due to several compelling reasons. Firstly, its strategic geographical location places it at the crossroads between the east and the west, making it a central hub for global connectivity. Secondly, the UAE, within the MENA region, acts as a gateway to various markets where e& operates, including Africa, South Asia, and Europe. This provides valuable access to diverse consumer bases and business opportunities. Lastly, the region's socio-economic landscape showcases a growing number of digitally-connected consumers who are experiencing increased spending power and salary compensation. These factors create a favorable environment for e& to tap into the expanding digital market and cater to the needs of the emerging digital native population.

What are the core areas e& will focus on in 2024 and beyond?

In 2024, e& is placing a strong emphasis on execution. Over the past year and a half, we have developed an ambitious plan, outlined in our '4D strategy' for 2030. While we

have set our aspirations, our focus now lies in collaborating with each of our business units to secure the necessary capital for deployment and execution towards that plan. Our goal is to translate these aspirations into tangible and actionable items that align with our business operations. To ensure effective progress, we have established robust governance and implemented rigorous processes to track our advancements against these goals. With a clear focus on execution, e& is poised to drive meaningful and measurable results in the coming years. **■**



We have strategically leveraged our core telco business while simultaneously expanding into new digital ventures within adjacent markets and new geographies





Regional Academic and ICT Experts Emphasize Vital ICT Talent Ecosystem

The Middle East and Central Asia's primary source of wealth is talent— a catalyst for our future intelligent societies. In this new era, digital talent drives digital transformation, unleashing digital productivity. As we stand at the precipice of a new era of digital revolution powered by 5.5G, AI, Cloud, and more, building a strong backbone of talent will help solidify our continuous economic growth.

A recent ICT talent cultivation forum in Bahrain brought together academic and industry experts to discuss challenges and opportunities in building the ICT talent ecosystem. They also discussed the importance of public-private partnerships in nurturing ICT talent innovations, supporting university curriculums with practical skills and training, and driving socio-economic growth in the region.

Some of the esteemed speakers on the panel included: Dr. Jassim Haji, President of International Group of Artificial Intelligence; Dr. Hessa Jassim Al-Junaied, Dean of the College of Information Technology, University of Bahrain; Dr. Tilda Karkour Akiki, Associate Dean of the School of Engineering, Holy Spirit University of Kaslik (USEK); and Amr Hashem, Policy Director, GSMA MENA. The discussion was moderated by Ammar Tobba, VP, Public Affairs and Communications, Huawei Middle East and Central Asia Region.

The forum was held alongside the Huawei ICT Competition 2023-2024 regional final awards ceremony at the University of Bahrain, and was attended by university students and tutors, government partners, ICT professionals, academia, and media representatives from 11 Middle East and Central Asia participating countries. During this discussion, the panelists shared their thoughts on driving digital transformation, building a sustainable knowledge-based digital economy in the region, and raising national competitiveness in line with

the governments' national plans and visions.

As a global ICT leader, Huawei has been keen to push the boundaries in the talent ecosystem through its successful CSR programs, such as Huawei ICT Academy, Seeds for the Future, ICT Competition, and much more. Huawei's ICT Competition, launched in 2017, has become the most significant and impactful initiative in the region. It is a potent program that focuses on developing ICT talent and enhancing the national competitiveness of countries through the cultivation of future ICT leaders. The competition has garnered support and endorsement from UNESCO, over 20 regional ministries, operators, and industry partners.

Dr. Hessa Jassim Al-Junaid, Dean of the College of Information Technology, University of Bahrain, underlined the importance of an open collaboration between universities and the public and private sectors to develop curriculum and upskilling students on the latest technologies, such as 5G and Cyber Security. She stated, "The Huawei ICT Talent initiative offers students practical skill development opportunities through hands-on challenges and real-world scenarios facilitated by Huawei professionals and experts. It fosters critical thinking and confidence-building among participants. Winning or receiving recognition in the competition can serve as a valuable addition to a student's academic portfolio, highlighting their accomplishments."

"Annually, the Huawei ICT Talent competition attracts a growing number of registered students, indicating its increasing popularity. The IT students who have taken part in the Huawei ICT Talent competition have demonstrated high employability due to the competition's provision of relevant skills, industry knowledge, problem-solving abilities, teamwork experience, and industry recognition. Additionally, the competition encourages students to pursue Huawei professional certifications that hold international recognition," Dr. Hessa added.

This year, a record-breaking number of more than 27,500 students from over 600 universities across 21 Middle Eastern and Central Asian countries participated in the Huawei ICT Competition. This marks the highest participation level in the competition's seven-year history. The regional finals were held in the Kingdom of Bahrain from December 19-21, 2023, and saw 22 teams, consisting of 66 national winners from 11 Middle Eastern and Central Asian countries including Bahrain, Pakistan, Iraq, Saudi Arabia, Lebanon, Jordan, Kazakhstan, Qatar, Kuwait, UAE, and Oman, competing for the top spot.

One of the expert panelists, Dr. Jassim Haji, President of the International Group of Artificial Intelligence and Executive Advisor to Nasser Al R&D Centre, focused on highlighting the importance of AI and how students can build essential skills to prepare for an AI-led digital future. He explained, "AI tools are poised to transform the way talented students learn and create, offering a wealth of benefits such as guidelines in the job market, course selection, and curriculum advisory. Furthermore, Generative AI creates tests tailored to each student's learning preferences, interactive activities, or even life-like simulations."

His remarks come at a timely moment, as a recent study by PwC estimated that AI could contribute up to USD 15.7 trillion to the global economy by 2030. Upskilling young ICT talents in AI will go a long way in narrowing the digital talent gap.

The panel also had representation from GSMA, a global organization unifying the mobile ecosystem to discover, develop, and deliver innovation that is foundational to positive business environments and societal change. Amr Hashem, Policy Director, GSMA MENA, shared his remarks on cultivating young talent for the telecommunications industry, especially in light of the accelerated deployment of 5G. He said, "At the GSMA, we believe that investing in the development of ICT talent is crucial for the future success of the telecommunications industry. The

rapid deployment of 5G technology requires a skilled workforce capable of driving innovation and meeting the evolving demands of the digital era. By fostering collaboration between academia and industry through initiatives like the Huawei ICT Competition, we can empower the next generation of professionals and ensure a sustainable and thriving future for the ICT sector in the Middle East and Central Asia."

Ammar Tobba, VP, Public Affairs and Communications, Huawei ME&CA Region, shared, "ICT talent development programs like the Huawei ICT Competition contribute towards bridging the digital divide and narrowing the digital skills gap, nurturing young industry talents and strengthening the ICT talent ecosystem across the region. As a global technology leader, Huawei is committed to supporting the national plans and vision of regional governments to build a robust knowledge-based digital economy, driven by local talents."

Huawei has been present in the Middle East for over two decades and has been providing open, flexible, and secure ICT infrastructure to bridge the digital divide for more than 3,500 enterprises and over 1.2 billion people in these two geographies. Huawei plays a key role in driving digital transformation in the Middle East and Central Asia (ME and CA), contributing to regional goals through the development of ICT ecosystems and the provision of advanced products and solutions for carriers, enterprises, cloud services, digital power, and consumers.

With its industry-leading innovations, Huawei continues to push the deployment of 5G and has already introduced 5.5G to the region in collaboration with multiple regional carriers. Huawei has also expanded and advanced its cloud business by opening new cloud regions in ME and CA. It has also grown its digital power business, helping facilitate carriers' shift from energy consumers to energy producers and enablers, aligning with government carbon emissions reduction objectives. **TR**



Navigating the AI Landscape: The Hybrid Approach

Enterprises today are looking towards AI adoption to stay competitive, better understand their customers, and uncover efficiencies. But while excitement continues to grow around AI's potential, many initiatives ultimately will struggle to gain traction. A primary culprit— the lack of a collaborative platform supported by a robust hybrid cloud infrastructure. Without a hybrid cloud underpinning an AI strategy, success remains elusive.

The promise of AI proves hard to ignore. New AI-powered tools help enterprises work smarter by automating mundane tasks. They also provide sharper insights from data that can transform customer experiences, uncover cost savings, and reveal new opportunities. With many leading companies now touting AI capabilities, almost every CIO feels the pressure to pursue AI or risk falling behind the competition.

But the reality is that enterprises struggle converting AI projects from pilot to production. The associated costs and complexity are overwhelming data science teams without the right operational maturity.

Infrastructure can't meet the heavy demands of AI workloads. Silos between developers, data engineers and IT ops slow progress.

Trust Through Model Explainability

In the realm of AI, trust is paramount. The idea of model explainability becomes a crucial factor in establishing trust, addressing concerns related to the 'black box' nature of large machine learning models. Many enterprises are hesitant to adopt AI due to understandable scepticism around trusting model outputs. How does one have confidence that AI recommendations accurately reflect reality? This proves especially concerning for risk-averse industries like healthcare and financial services.

Model explainability is not just about understanding the model's inner workings; it's about ensuring that the model has been trained on verified, proprietary, contextual data. The most valuable data for enterprise use cases remains the proprietary data, which is stored on legacy systems and within private data centres. Utilizing models trained on cleaned, validated, and enriched proprietary data assets instils confidence that AI outputs are rooted in real-world, truthful data specific to the organization.

For example, by training customer service chatbots on years of genuinely tagged customer call transcripts, organizations can ensure that their responses match real customer conversations versus mimicking online dialogues. Similarly, in Ansible Lightspeed, models are trained on real working Ansible playbooks— the outputs are not just theoretically sound, they are practical and workable.

The verified data flows through hybrid pipelines into the models. When deployed, AI drives decisions, provides recommendations, or even automatically generates code. This helps organizations to explain what factors and data trained the model. This transparency establishes justified trust and confidence in adopted AI.

The big problem with this approach is that many organizations, especially highly regulated ones, are hesitant to have proprietary data in the cloud. In some cases, they're simply not able to due to legal and regulatory requirements. Keeping data on premise is therefore a must.

Flexibility with Burstable Resources

This is where stakeholders encounter the next big problem - AI model development and training soaks up massive compute cycles well beyond the capacity of traditional data centres. The variable nature of data science work also demands flexible scaling up and down of infrastructure to meet the required needs; meaning there is an undeniable need for the compute power and scalability that the public cloud offers.

Public cloud costs can spiral out of control without proper governance. What data science teams require is flexible access to public cloud resources that burst from a private cloud foundation. A hybrid model provides the most cost-efficient and agile training environment by eliminating unused capacity. A hybrid cloud allows public cloud consumption only when necessary to meet temporary demands whilst also enabling data to reside on premises.

An additional benefit of the hybrid approach centres around Environmental, Social and Governance (ESG) issues. As consumers and customers become increasingly motivated by ESG issues, they are moving their spending power to organizations with an established framework. Enterprises can consider hybrid cloud structures as offering a balanced approach to managing costs and environmental sustainability. Organizations can optimize resources based on specific project requirements, ensuring that AI initiatives remain cost-effective and environmentally responsible. The flexibility provided by a hybrid cloud allows for dynamic allocation of resources, preventing unnecessary expenditures and reducing the overall carbon footprint associated with AI model training.

The journey toward AI excellence involves striking a delicate balance. The era of AI demands not only technical prowess but also strategic acumen in managing proprietary data, ensuring legal compliance, and optimizing resources. The hybrid cloud emerges as the linchpin in this narrative, offering a holistic solution that aligns the potential of AI with the imperatives of modern enterprise governance. As the AI landscape continues to evolve, embracing a hybrid cloud-centric strategy is not just a choice; it's an imperative for success. **TR**

By Erica Langhi, Senior Solutions Architect EMEA, Red Hat



The era of AI demands not only technical prowess but also strategic acumen in managing proprietary data, ensuring legal compliance, and optimizing resources





Standardization Day: ETSI Meets UAE

In cooperation with xFlow Research, du hosted the event entitled 'Standardization Day - ETSI Meets UAE' which took place for the first time in the MENA region, on December 4, 2023, at the Grand Cosmopolitan Hotel, Dubai.

To foster technology information exchange between the UAE and ETSI, the concept for this event was suggested by the CEO of xFlow Research, Ashok Malani. As part of the organizers' team, Fathi Abdeldayem, Technology Standardization, R&D and Evolving Technologies, du has greatly contributed to the success of this event.

Delegates from the European Telecommunication Standards Institute (ETSI)— an independent, non-profit, premier body leading the development of standards in information and communication technology (ICT)— graced attendees with their presence and shared insights about

the importance of standardization and details on their activities and action plans.

The UAE stands as one of the most technologically advanced nations; consistently pushing boundaries and embracing innovation to enhance the quality of life. This event aims to introduce ETSI to this region to raise awareness about ETSI's standards, their standardization activities and provide an opportunity for the UAE stakeholders to come together, collaborate and explore avenues for future synergies.

In his welcome note, Fazal-e-Rehman Khan, President, xFlow Research, expressed that with wise leadership, "the UAE has demonstrated a keen understanding of the transformative

powers of technology in addressing global issues, fostering innovation and creating a positive impact on the lives of the people."

As part of the event's introduction, du representatives have shed the light on the UAE-based leading telco's huge focus and support on standardization and enabling connectivity for economic, social and digital transformation. du touches the lives of millions every year and is an enabler of connectivity with continuing growth across consumers and enterprises. du has nationwide coverage and its network is declared as fully global, having access to 2G/3G/4G/5G standards, and working alongside ITU, GCF, GSMA, 3GPP, and now, ETSI. Moreover, du currently leads the technological innovation in

the light spectrum, sustainability and international collaboration.

ETSI: The Home of ICT Standardization

Designing tomorrow's world, ETSI is at the forefront of new ICT; leading the development of standards that enable a sustainable and securely-connected society. With over 30 years of track record in technical excellence, ETSI has an open and inclusive environment, having more than 900 member organizations globally.

In his presentation, ETSI's Director General, Luis Jorge Romero, showed how "things happen from the bottom up" in their organization. He emphasized three aspects of their structure: technical committees, industry specification groups (ISGs), and software development groups (SDGs).

Technical committees (TCs) are the starting point and consist of a group of experts handling different topics while ISGs are the pre-normative incubator for research and the perfect tool for pre-standardization work. Designed for collaborative software development, SDGs embody the essence of implementation and standardization. Both ETSI ISGs and SDGs are open to ETSI members and non-members.

All have actively supported and contributed to 3GPP, with ETSI aligning itself with 3GPP, the global standards organization for mobile communication. "We want to do many things, and this is possible as all our members come together to push for ICT standardization. We strive for partnerships in areas out of our expertise and address geographical issues."

ETSI Technical Officer, Chantal Bonardi, took a deep dive into five technical standardization domains that ETSI and 3GPP are working on: Intelligent Transport Systems (ITS), Augmented Reality, Smart Body Area Network (SmartBAN), Lawful Interception (LI) and Retained Data (RD), and Emergency Communications (EMTEL).

On the other hand, the ETSI Centre for Testing & Interoperability (CTI) Director, Laurent Velez, focused on IoT standardization and one of their



From left to right: xFlow Research CEO Ashok Malani; ETSI CTI Director Laurent Velez; xFlow Research President Fazal-e-Rehman Khan; ETSI Technical Officer Chantal Bonardi; ETSI Director General Luis Jorge Romero



ETSI Director General Luis Jorge Romero

partnership projects: oneM2M. Calling it the 'glue to connect,' this horizontal IoT platform streamlines the onboarding of new applications and devices. Due to its distributive and scalable nature, it is useful for developers, interoperable with other standards and has flexible deployment options.

Giving more context to the data, Velez also mentioned the importance of the ETSI TC SmartM2M. The SAREF (Smart Applications REference) allows connected devices to exchange semantic information in many IoT applications' domains.

2030: Decade for 6G

While there is no unanimous definition of 6G, it is anticipated to be a

blend of incremental technological advancements from 5G and the introduction of some revolutionary new concepts. With a new generation coming every 10 years, the first 6G services are anticipated to be deployed in 2030.

ETSI's Director General, Romero, mentioned that there are "many pieces of the puzzle which serve as building blocks in 6G and ETSI helps in standardizing them." This window of opportunity will be successful by "staying together, embracing differences, and contributing to influence."

Conversations regarding the 6G work plan are currently in progress, focusing



From left to right: Dario Sabella, Chairman, ETSI ISG MEC and Fathi Abdeldayem, Technology Standardization, R&D and Evolving Technologies, du



Live Demo During the 'Standardization Day - ETSI Meets UAE' Event

on the research and vision phase. More formal standards for 6G will follow later and are expected to begin in 3GPP in Rel-20 (6G initial studies) and Rel-21 (6G service requirements).

Fragmentation Risk and Standardization Benefits

ETSI's Director General believes that "Equanimity is essential to preserve the cornerstones of standardization," especially within the current (and future) geopolitical situations. ETSI and 3GPP adopt a neutral position, treating all members equally to maintain a single global standard approach (moving from 5G to 6G).

Bonardi noted that standardized solutions are a win-win situation that

ensure "quality, efficiency, security and interoperability." ETSI standards are open to avoid vendor lock-in and are developed through collaboration, for the benefit of all: users, investors, manufacturers and regulators.

MEC in Action

Another important aspect tackled is ETSI's ISG on Multi-Access Edge Computing (MEC). Dario Sabella, Chairman, ETSI ISG MEC, noted that "contribution is important." At ETSI MEC, they believe in a contribution-driven, access-agnostic standardization approach, with API as their core business. "The future is written by you," added Sabella. In facilitating global app portability, ETSI is unable to publish all APIs

but strongly encourages the use of compliant APIs.

During the ETSI-UAE Standardization Day, which targets paving the way towards deeper cooperation between ETSI and the UAE telecom industry, Sabella announced that du is the first operator in MENA that has joined the MEC ISG, confirming its role at the MENA Standardization forefront.

This announcement confirms the vision of the management regarding 5G and 6G, with MEC providing a new ecosystem and value chain. Operators can open their Radio Access Network (RAN) edge to authorized third parties, allowing them to flexibly and rapidly deploy innovative applications and services to mobile subscribers, enterprises and vertical segments.

ETSI MEC provides application developers and content providers with cloud computing capabilities and an IT service environment at the network edge. This facilitates advancements in various sectors, including automotive, industrial automation, VR/AR, and smart cities.

The MEC Standard has advanced from Phase 1 to Phase 3, and the transition to MEC Phase 4 is poised to bring about more consolidated efforts on MEC Federation. This involves addressing multi-domain and multi-tenancy slicing, MEC support for application slicing, and the introduction of normative work to enhance security and privacy in MEC systems.

Technology Talks and Demo Booths

At the event, the introduction of the technology talks and demo booths proved to be a triumph. Positioned strategically, these talks and booths allowed valued industrial partners, Technology Innovation Institute (TII), Canonical, Keysight, Rakurai, io, DYA.ai, and Rhode and Schwarz to present and demonstrate their latest products and services built in line with the ETSI standards. Attendees seized the opportunity to engage with industry professionals, experience live demos, and delve into insightful discussions about the future roadmap of telecommunications. 

Nokia and du Poised for Leadership in UAE with Advanced 5G Technology RedCap



Nokia and du, from Emirates Integrated Telecommunications Company (EITC), successfully completed the UAE's first 5G-Advanced 5G Reduced Capability (RedCap) trial over a commercial network. The trial showcased the readiness of du's 5G network for innovative use cases in areas such as the Internet of Things (IoT), wearables, and Industry 4.0 to address 5G monetization challenges.

With RedCap devices expected to be commercially available from 2024, it will significantly augment du's diversified use case portfolio to include cost-efficient 5G home wireless, wearables, video surveillance, and wireless industrial sensors.

Streamlining 5G Devices

5G devices commonly feature intricate hardware and energy-intensive capabilities, resulting in higher cost, size, and power consumption. RedCap technology is dedicated to streamlining 5G devices, specifically targeting compact IoT devices like wearables and health trackers, as well as ruggedized routers and sensors for environmental or condition-based monitoring. These devices exhibit lower demands for battery life and reduced bandwidth requirements. RedCap ensures they sustain performance while optimizing their power efficiency. Nokia has been instrumental in driving the evolution of RedCap IoT functionality in collaboration with the telecommunications industry.

Saleem Alblooshi, Chief Technology Officer at du, said, "This collaboration introduces the revolutionary 5G-Advanced RedCap functionalities, enabling seamless connectivity of

RedCap devices to cutting-edge 5G networks. Nokia's unparalleled innovation simplifies and pioneers the development of 5G devices, particularly wearables and small IoT devices; significantly enhancing LTE-CAT4 performance and optimizing energy efficiency. These remarkable technological advancements are pivotal in propelling Industry 4.0 revolution."

Mikko Lavanti, Senior Vice President at Nokia MEA, said, "This new collaboration between du and Nokia represents not only a significant step forward in the monetization of 5G technology but also solidifies the UAE's position as a pioneer in the evolution of 5G use cases for society and enterprises. As the collaboration progresses, both companies are poised to revolutionize the way we experience and interact with 5G technology, unlocking unprecedented possibilities for innovation and connectivity."

NPOI® - FTТА/PTTA Connectivity Solutions for the Wave of 5.5G



To date, over 260 global operators have launched 5G commercial services, serving over 1.5 billion users. The ongoing development and innovation in network deployment and applications signify a dynamic landscape. As a pivotal link between 5G and the anticipated 6G, the focus on the latter part lies within the realm of 5.5G, also known as 5G-Advanced. Key attributes of 5.5G network construction include: exceptional performance, eco-friendly practices,

compatibility, resource sharing, and self-intelligent management, meeting evolving demands of OEMs and operators.

Rosenberger's NPOI® (Neutral Point of Interface) connectivity solutions provide a range of scalable, flexible, and high-performance FTТА/PTTA solutions designed to be future proof. Employing a shared and generalized design concept, these solutions utilize preconnected trunk technology, non-proprietary plug-and-play tower fiber and power connection ports. This approach facilitates co-construction of sites among different operators or OEMs, encourages RAN sharing, minimizes connection loss, enhances network transmission performance, and optimizes resource utilization. The aim is to maximize the return on investment for site constructions in the upcoming 5.5G era.

NPOI® connection solutions include both a preconnected FTТА/PTTA trunk cabling solution and a hybrid FTТА/PTTA cabling solution.

As the new wave of 5.5G emerges, the optimization and upgrade of site construction are vital for achieving the best network performance. The selection of connectivity products and solutions between BBU/PSU, RRH, and antenna plays a crucial role. Rosenberger's NPOI® FTТА/PTTA Connectivity Solutions, based on a standardized backbone link platform and flexible branch channels, ensures trouble-free operation in harsh environments for network transmission channels of different operators and OEMs. This approach aligns with green, low-carbon, compatible, sustainability goals and enables continued growth in the evolving telecommunications landscape.

MIDDLE EAST 2024

CONNECTING MENA REGIONALLY
AND INTERNATIONALLY

6 - 8 February 📍 Grand Hyatt, Dubai, UAE

Pre-event activities - 4 - 5 February

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SESSIONS NOT TO BE MISSED:

GCC Keynote Chat Show: Positioning the GCC as the next global connectivity hub

Due to its strategic location, the GCC region has an excellent ability to connect the East to the West. With plans to further expand beyond its current scope through investments into digital infrastructure, the region is set to lead at the forefront of connectivity excellence.

Panel Discussion: Shifting priorities: The dichotomy between network access and backbone infrastructure

The convergence of telecoms and ICT has brought to life key use cases such as content, gaming providers, and other applications. This has elevated the role of OTTs, who are setting up presence in the region, but also elevated the priorities of an optimised ISP network model.

Panel Discussion: How will Generative AI alter the tech industry?

As AI continues to strengthen its presence in the region, this fireside chat will explore some of the key points of how we can get on board this bandwagon to unlock its true value and potential.

LOOK WHO'S ALREADY CONFIRMED TO ATTEND!



WHY YOU NEED TO BE THERE TOO:

- Build long and continued relationships with the region's most influential carriers and connectivity solution providers
- An expanded and re-imagined exhibition zone
- Join the GLF membership onsite in their dedicated lounge and play your part in further shaping the connectivity industry
- Capture the ambience in our various interactive networking experiences, including workshops, masterclasses, forums and social events



Global Impact, Regional Brilliance: Telecom Review's 17th Summit Soars to Success

Under its annual theme “Global. Regional. Digital,” the 17th edition of the Telecom Review Leaders' Summit successfully concluded its two-day gathering with the participation of a broad range of professionals, including telecom operators, telecom vendors, industry regulators, government officials, content providers, cybersecurity experts and consultants, among other attendees.

The Telecom Review Leaders' Summit once again made history as one of the most anticipated and largest ICT events in the industry, with the continued presence of thousands of distinguished guests across the

ICT industry, as well as the support of the Telecommunications and Digital Government Regulatory Authority (TDRA) and 2023's esteemed lineup of sponsors, namely e&, du, Huawei, Netcracker, PMP Strategy, AALTO HAPS, Amazon Web Services (AWS), Bayobab, Beyond ONE, PCCW Global | Console Connect, NEC, Nokia, Salam,

Verizon, Fortinet, Digital DEWA | InfraX, MYCOM OSI, Reailize, Related, SCIT Group | SkyFive Arabia, SES, Sofrecom, Vodafone Oman, Centrigent Consulting, Telcovas, Telecom Egypt, ZTE and EXA Infrastructure.

From December 6-7, 2023, the huge conference hall and demo exhibition



Toni Eid, Founder of Telecom Review, and CEO of Trace Media International



OFFICIAL OPENING KEYNOTE:

Eng. Saif Bin Ghelaita, Executive Director - Technology, Development Affairs Department, TDRA



OPENING FIRESIDE CHAT:

Hatem Dowidar, Group CEO, e&

Toni Eid, Founder of Telecom Review, and CEO of Trace Media International

area were fully packed with attendees, fulfilling the event's goal of providing informative sessions and delivering an extensive platform for brand promotion and networking.

Commenting on the success of the event, Toni Eid, Founder of Telecom Review and CEO of Trace Media International, said, "A heartfelt thank you to all participants, distinguished speakers, and partners for their unwavering support for the huge success of the 17th Telecom Review Leaders' Summit. The two days have been filled of excitement, networking and knowledge sharing. We look ahead with anticipation to the continued evolution of industry discourse and

innovative advancements, and we will be ready to craft another chapter in ICT leadership excellence. Join us next year for another groundbreaking 18th edition!"

Telecom Review Leaders' Summit

This year's summit was bigger than ever, raising the bar higher with distinctive and top-notch speakers, all thanks to the participation of the most influential figures in the ICT industry from all over the world, representing the Middle East, Africa, North America and Asia Pacific regions, among other locations.

Opening the floor for the 17th edition of the Telecom Review Leaders' Summit,

Toni Eid addressed the audience with a welcome note.

During the first day, Eng. Saif Bin Ghelaita, Executive Director - Technology, Development Affairs Department at TDRA graced the attendees with his presence and delivered the official opening keynote. Three fireside chats took place to discuss the journey from being a telco to techco, how to compete in the future telco market, and tech's new horizon in a digital transformation journey.

Pioneered by the ICT Leaders' Panel, other exclusive panels were arranged on day one to cover the topics of generative AI,



PANEL OPENING KEYNOTE:
Andrew Feinberg, Chairman and CEO, Netcracker Technology



Mikko Lavanti, SVP Mobile Networks MEA, Nokia



FIRESIDE CHAT: HOW TO COMPETE IN THE FUTURE TELCO MARKET
Masood Mohamed Sharif Mahmood, CEO, etisalat by e&
Toni Eid, Founder of Telecom Review Group

sustainability, cybersecurity, and digital transformation.

As part of the 17th Telecom Review Leaders' Summit's closing agenda for the first day, Telecom Review Group expressed their appreciation to all sponsors through a special certificate ceremony.

During the second day, the official opening keynote was given by Eng. Mohammed Al Khamis, Director Development Department, TDRA, and three fireside chats took place to discuss du's role as a technology player, the future of wholesale business, and optimizing techco operations using AI. Exclusive panels conducted during day

two include the second session of the ICT Leaders' Panel, and topics on wholesale, infrastructure deployment, Women in ICT, and artificial intelligence. Celebrating the first year of 5G-Advanced in the Middle East, a special panel and initiation ceremony was also held, along with a signing ceremony between the African Telecommunications Union (ATU) and the International Amateur Radio Union (IARU).

Over the course of 2023's Telecom Review Leaders' Summit, impressive keynote speeches were also delivered by notable individuals across the ICT industry. Among the list were:

- Andrew Feinberg, Chairman and CEO, Netcracker Technology;

- Mikko Lavanti, SVP Mobile Networks MEA, Nokia;
- Tang Zhentian, President of Huawei MECA, Marketing & Solution Sales Department;
- Yasser Alsaied, VP IoT, AWS;
- Karim Benkirane, CCO, du;
- Samer Halawi, CEO, AALTO HAPS;
- Tomas Lamanauskas, Deputy Secretary-General, ITU;
- Kayahara Masayuki – General Manager, Service Provider Solutions Department, NEC;
- Marwan Bin Shakar, SVP, Access Network Development, etisalat by e&;
- Mohammed Aliyu, Chief FibreCo Officer, Bayobab; and
- Saleem Al Blooshi, Chief Technology Officer, du 



Tang Zhentian, President of Huawei Middle East and Central Asia region Marketing & Solution Sales Department



Yasser Alsaied, VP IoT, AWS



PANEL: MIDDLE EAST JOINS HANDS IN THE FIRST YEAR OF 5G ADVANCED



**FIRESIDE CHAT:**

Bernard Najm, Vice President Telco MEA, AWS
Talal Al Mamari, CEO, Omantel



Karim Benkirane, CCO, du



Samer Halawi, CEO, AALTO HAPS



PANEL: THE ICT LEADERS KEEPING UP WITH THE FAST TECHNOLOGICAL EVOLUTION - SESSION 1



PANEL: LEVERAGING GENERATIVE AI FOR SUCCESSFUL TELCO TO TECHCO TRANSFORMATION - POWERED BY AWS



PANEL: SUSTAINABILITY & GREENTECH



PANEL: RAISING THE CYBERSECURITY BARRIER - DATA PRIVACY AND PROTECTION



PANEL: THE EVOLUTION OF DIGITAL TRANSFORMATION - A NEW GENERATION OF TELCOS



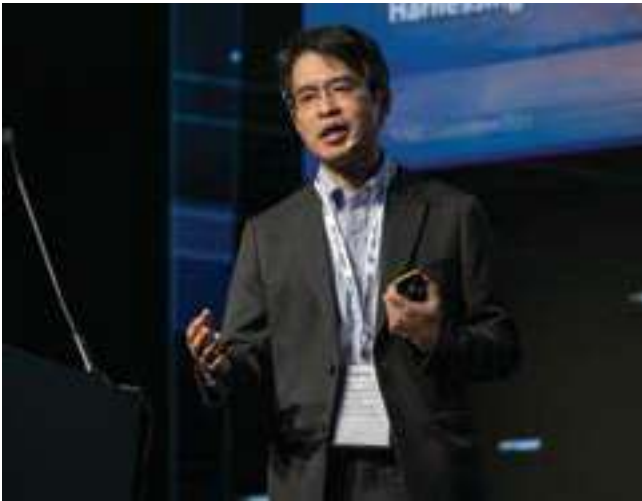
APPRECIATION CERTIFICATE CEREMONY TO SPONSORS AND PARTNERS



OFFICIAL OPENING KEYNOTE:
Eng. Mohammed Al Khamis, Director Development Department, TDRA



Tomas Lamanaukas, Deputy Secretary-General, ITU



Kayahara Masayuki, General Manager, Service Provider Solutions Department, NEC



Marwan Bin Shakar, Sr. Vice President/Access Network Development, etisalat by e&



FIRESIDE CHAT: DU'S ROLE AS A TECHNOLOGY PLAYER IN ENABLING UAE AS A SUSTAINABLE NATION

Jasim Al Awadi, Chief ICT Officer (Acting), du
Issam Eid, COO, Telecom Review Group



OPENING FIRESIDE CHAT: EMBRACING CHANGE – EXPLORING THE FUTURE OF WHOLESALE BUSINESS

Nabil Baccouche, Group Chief Carrier & Wholesale Officer, e&
Jeff Seal, Managing Partner, Telecom Review North America and Chief of the Awards Committee

**FIRESIDE CHAT:**

Mikhail Gerchuk, Chief Executive Officer, e& international

Jeff Seal, Managing Partner, Telecom Review North America and Chief of the Awards Committee



Mohammed Aliyu, Chief FibreCo Officer, Bayobab



Saleem Al Blooshi, Chief Technology Officer, du



ATU-IARU Signing Ceremony



PANEL: THE ICT LEADERS KEEPING UP WITH THE FAST TECHNOLOGICAL EVOLUTION - SESSION 2



PANEL: WHOLESALE INDUSTRY - SIGNIFICANT INFLUENCE IN THE ERA OF MULTI-CONNECTIVITY



PANEL: THE "POTION" FOR THE RIGHT INFRASTRUCTURE DEPLOYMENT



PANEL: WOMEN IN ICT



PANEL: THE FUTURE OF TECHNOLOGY WITH ARTIFICIAL INTELLIGENCE









Telecom Review Excellence Awards



One of the highlights and most exciting part of the 17th Telecom Review Leaders' Summit was the annual Telecom Review Excellence Awards ceremony, which honored leading ICT brands and leaders for their achievements throughout the year and was followed by the annual gala dinner.

Jeff Seal, Chief of the Awards Committee, Managing Partner and Editor-in-Chief, Telecom Review North America, said, "In 2023, the Telecom Review Excellence Awards set a new benchmark, attracting significant industry interest with a record-breaking global nomination. To accommodate

this, we introduced more distinct awards on a global and regional scale. These awards remain the industry standard for peer recognition, thanks to the thorough deliberation by our esteemed panel of global experts. Congratulations to all winners, and we look forward to another celebration of excellence next year!"

On December 5, prior to the 17th Telecom Review Leaders' Summit, the International Telecommunication Union (ITU) CxO meeting was also hosted by Telecom Review, with the Telecommunications and Digital Government Regulatory Authority (TDRA), du and TELUS as co-hosts. [ITB](#)

Telecom Review Regional Excellence Awards



Best Operator- Best Regional Cloud Provider - Best Digital Government Initiative - Best Smart Infrastructure Management/Solution – Middle East: du



Best Operator – Asia: Indosat Ooredoo Hutchison (IOH)



Best Operator – North America: Verizon Partner Solutions



Best Operator – Africa: MTN Group



Best Fiber Infrastructure Deployment – Europe: EXA Infrastructure



Best Fiber Infrastructure Deployment – North America: TELUS



Best Diversity & Inclusion Program – Middle East: Zain KSA



Best 5G Advanced Innovation (Vendor) – Middle East: Huawei



Best 5G Advanced Deployment (Operator) – Middle East: etisalat by e&



Best Digital Outreach – Middle East: TDRA



Best Digital Outreach – Asia: ZTE Corporation



Best Sustainable Technology - Best Carrier Enterprise Service – Asia: China Mobile International



Best 5G Infrastructure Deployment – Middle East: stc Bahrain



Best 'Telco-Tech' Partnership Award - Best Brand and Best Diversity & Inclusion Program – Africa: Bayobab



Best CSR Initiative - Middle East and Best Digital Customer Experience – Middle East: Ooredoo Oman



Best Digital Customer Experience – Africa: Win by inwi



Best Digital Customer Experience – North America: Verizon Partner Solutions



Best Green Technology – Middle East: Zain KSA / Red Sea Global



Best Carrier Enterprise Service – Africa: Telcovas Solutions and Services



Best Smart Infrastructure Management/Solution – Europe: Comarch



Best Wholesale Company – Middle East: Saudi Telecom Company – KSA



Best Sustainable Green Innovation Technology – Middle East: InfraX - A Digital DEWA Company



Best Loyalty & Rewards Program – Middle East: Ooredoo Kuwait



Most Innovative Product/Service (Vendor) - Middle East: MYCOM OSI

Telecom Review Global Excellence Awards



Best Sustainable Green Innovated Technology – Global: SKYFive Arabia



Most Innovative Product/Service (Operator) – Global: PCCW Global | Console Connect



Best 5G Innovation – Global: Nokia



Best Loyalty & Rewards Program – Global: Comviva Technologies and Ooredoo



Best Satellite Operator – Global: SES



Most Innovative Product/Service (Vendor) – Global: NEC



Best AI Use for Network Monetization - Best BSS Solution – Global: Netcracker Technology



Best Fiber Infrastructure Deployment – Global: BNET Bahrain



Best Smart Infrastructure Management/Solution – Global: Nokia



Best Digital Transformation Provider (Vendor) – Global: Huawei



Best Digital Transformation Deployment (Operator) – Global: PCCW Global | Console Connect



Most Innovative SD WAN Solution – Global: Fortinet



Best Technology Deployment (Vendor) – Global: Reailize - A B-Yond Company



Best ICT Investment – Global: e& international



Best Diversity & Inclusion Program – Global: Nokia



Best DDoS Detection & Security Mitigation Solution – Global: Verizon Partner Solutions



Best Employer Initiative – Global: e&



Best Cloud (CSP Enablement) – Global: AWS/Omantel

Telecom Review Global Merit Leader Awards



Global Merit Leader CTO of the Year – Operator
Haithem Al-Faraj, Group Chief Technology Officer, Saudi Telecom Company – KSA



Global Merit Leader Women in ICT of the Year
Njoud Al Shehri, Digital Executive General Manager, Zain KSA



Telecom Review Successfully Hosts High-level ITU CxO Roundtable for 2023

Telecom Review, in collaboration with du, TELUS and Huawei hosted the 7th International Telecommunication Union (ITU) CxO roundtable on December 5 at the Le Méridien Hotel and Conference Centre, Dubai.



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The important ICT
standardization meeting
saw participation from 34
participating companies

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The important ICT standardization meeting saw participation from 34 participating companies: UAE Telecommunications and Digital Government Regulatory Authority (TDRA); AB Handshake Corporation; Afinna One Srl; Bahrain Network; Emirates Integrated Telecommunications Company (du); FNSValue Company Limited; Global Voice Group; Globalmatix AG; Hangzhou Qulian Technology Co., Ltd.; Huawei Technologies Co., Ltd.; Japan Industrial Imaging Association; Jinan Institute of Quantum Technology; Kamaleon; Mukti Mandiri Lestari; Nippon Telegraph and Telephone Corporation; Ooredoo Group; OpenSignal Ltd.; Rohde & Schwarz Middle East & Africa; Sateliot; Senko Advanced Components (Euro) Ltd.; Skylo Technologies Inc.; SomosGov Inc.; State Grid Corporation of China; Technology Innovation Institute; Telecom Review North America; Telefon AB - LM Ericsson; TELUS Communications Inc.; The Telecommunication Technology Committee; Trace Media International FZ-LLC; Transatel; Tunisie Télécom; VIAVI Solutions; World Mobile Group Ltd.; ZTE Corporation.

In his opening remarks, Tomas Lamanauskas, Deputy Secretary-General of the International Telecommunication Union welcomed the participants and recognized Telecom Review's efforts in hosting the CxO roundtable for the 7th time in a row. He emphasized the need to build robust networks to broaden access to digital technologies that contribute to sustainability, reduce greenhouse gas emissions, and address concerns like e-waste management.

Seizo Onoe, Director, Telecommunication Standardization Bureau, ITU, underscored three primary objectives crucial to ITU's mission – establishing a community of C-level executives within ITU, fostering information sharing within the community, addressing shared challenges, and charting suitable directions for the industry. Additionally, there was an emphasis on the continuity of this meeting into the next year.

Bilel Jamoussi, Deputy-Director at ITU, provided an overview of the upcoming 'AI for Good' summit on 30-31 May 2024 in Geneva, Switzerland, and World Telecommunication Standardization Assembly (WTSA-24) on 14-24 October 2024 in New Delhi, India during the meeting. He highlighted that ITU's industry focus is coming to fruition through its diverse global and regional initiatives.

H.E. Eng. Saif Bin Ghelaita, Executive Director - Technology, Development Affairs Department, TDRA, stressed that the impact of ICT in sustainability cannot be underestimated. He acknowledged digital transformation as a "formidable ally" across various sectors. He recognized that the technological landscape is constantly changing, and that the UAE has developed a robust ICT infrastructure to keep up with current and future advancements. He also highlighted the need to foster innovation and bridge the digital divide. He noted that ICT was essential for sectors such as healthcare and underscored TDRA's efforts for sustainable operations. He hoped that the deliberations from the CxO roundtable would lead to a brighter future.



Toni Eid, Founder of Telecom Review and CEO of Trace Media International, expressed pride in the company's association with ITU as an Associate. He commended the collaborative efforts of co-hosts, including du, Telus, Huawei, TDRA, and ITU. He regarded Telecom Review as the largest media platform pushing the ICT development agenda.

Hasan AlShemeili, VP and Head of Infra Technology Planning, du, said that it was an honor to be "among visionaries" and hailed technology and collaboration as important tools in an interconnected world. **TR**

SCAN TO READ THE
FINAL ITU COMMUNIQUE





Seizo Onoe
TSB Director,
ITU



Leaders gather from all over the world; it is crucially important for leaders and decision-makers in each organization to discuss common challenges. This Summit provides this.



John Omo
Secretary
General, ATU



This summit offers a fantastic opportunity for telecom leaders worldwide to assess the challenges within their networks, policy development, and regulatory landscapes. It serves as a platform to benchmark their progress, share ideas, and gain insights into the challenges and opportunities anticipated in the coming year.



Marc Halbfinger
CEO,
PCCW Global



I make it a point to attend the Telecom Review Leaders' Summit whenever possible, in December, considering it an excellent opportunity to gauge the status of our industry in this region before the end of the calendar year. The event attracts a large number of industry professionals due to its high-quality agenda and content. Meeting with numerous colleagues and engaging in valuable discussions makes it a fantastic experience. The combination of insightful content, networking opportunities, and interactive sessions, is unparalleled. Thus far, I haven't come across anything that can rival Telecom Review.



Samer Halawi
CEO, AALTO
HAPS



Our experience with Telecom Review is excellent. It is a place where not only do we come to network with very senior individuals in their own organizations, and learn new things, and hopefully provide new information; but, we also have come to be with friends. Telcom Review Summit has been the premier event in the region. We're looking forward to doing it again next year.



Ken Campbell
Partner, PMP
Strategy



For over 15 years, Telecom Review has established itself as a prominent platform within the telecommunications industry. Its significance lies in its ability to foster meaningful connections among individuals from diverse backgrounds, including thought leaders and industry experts. By encouraging dialogue and facilitating the exchange of ideas, Telecom Review has played a crucial role in uniting the community within the regions it operates. Moreover, its influence has extended beyond regional boundaries, now making a significant impact on an international scale as well.



Mounir Ladki
President and
CTO, MYCOM
OSI



Although it's widely known that the Telecom Review Leaders' Summit has evolved into a premier regional conference for the telecom sector, I would venture to say it has gained global recognition. The number of C-Levels in attendance is just unheard of and is not seen in any other similar conference. The content is exceptionally high-quality and it provides a solid framework to build relationships, exchange ideas, and do business. For us, it is a must-attend conference. We'd really like to thank the organizers for this flawless event and look forward to attending next year.



Karim Benkirane
CCO, du



As a prominent player in the UAE telecom market, du is proud to participate in the Telecom Review event in Dubai. We see this as a valuable opportunity to gain insights from other industry leaders and networking experts. At du, we are committed to sharing our experiences and success stories as a leading digital telco in the UAE. Telecom Review serves as an ideal platform for us to showcase our accomplishments and exchange knowledge with our partners. We believe in the power of collaboration and leveraging this event to contribute to the growth and development of the telecom industry as a whole.



Nabil Baccouche
Group Chief
Carrier &
Wholesale
Officer, e&



The experience is fantastic, and I think Toni and his team are doing a great job. We are happy to be here as the e& group, while meeting ICT leaders from the region and around the globe and exchanging ideas on very interesting topics centered around 5G, IoT, AI, and sustainability.



Fadi Pharaon
President,
MEA, Ericsson



I had the pleasure of participating in a panel at the Telecom Review Leader's Summit. It was really interesting to discuss topics related to how technology could support sustainability and the SDGs (Sustainable Development Goals). I enjoyed being here and would like to thank the Telecom Review Summit for inviting us.



**Eng. Haithem
Al Faraj**
Group Chief
Technology
Officer, stc



The Telecom Review event is recognizable. I'm very much delighted to be here. It gives opportunities for myself and other ICT leaders, as well as different people, to get in touch with partners and look into new trends and technologies. It gives us opportunities to collaborate. I believe that many businesses and industries will increasingly adopt collaborations and partnerships as the means to create value for themselves and their communities.



Hani El Kukhun
CEO MEA, Beyond
ONE



I have been engaged with the Telecom Review Leaders' Summit and the Telecom Review Group for over a decade. The group has created a great platform for our executives to share some of the best learnings and practices that are available in the industry with their peers. Every year they exceed expectations in terms of content relevance and the people who attend this important ICT event. We truly see a lot of value coming out of this summit and we continue to engage during the rest of the year through different opportunities. The Telecom Review Group has created a class of its own and now it's one of the leading platforms for networking for ICT executives in the region and the world.



May Li
Solution and
Marketing VP,
Huawei Middle
East & Central
Asia Carrier
Business Group



I believe this this year's Telecom Review Leaders' Summit has once again exceeded everyone's expectations in terms of tackling topics relevant to operators in the realm of digital transformation trends. It explores key technologies that that will influence transformation and outlines how they will bring benefits to various industries. Particularly, the topics around cloud, AI and 5G connectivity and security were interesting and enlightening to all of us. Overall, it's a well-organized event; well done to the team.



Dr. Bilel Jamoussi
Deputy to the
Director and Chief of
Telecommunication
Standardization
Policy Department,
ITU



Telecom Review has been a partner with ITU, and it holds a significant position within the ITU community. Over the years, we have consistently co-located our Chief Executive Officers' meetings with the Telecom Review Summit, fostering a dynamic dialogue about the future of standards. This gathering serves as a vital platform for networking, knowledge-sharing, and exchanging experiences on a global scale. With operators joining from North America, the Middle East, and Africa, each contributing a unique perspective, the annual event becomes a melting pot of ideas and insights. The diverse discussions over these few days greatly contribute to the continued growth of our industry and the strengthening of our networks.



**Günther
Ottendorfer**
CTIO, Ooredoo
Qatar



This year's Telecom Review Leaders' Summit is certainly an event that brought together thought leaders from all over the region. Toni and his team have created a very good framework and a very good setting to meet other industry thought leaders to discuss meaningful trends.



Bernard Najm
Vice President
Telco MEA, AWS



Having attended the Telecom Review Leaders' Summit for over 15 years, I've gained a rich experience from this event. At the end of each summit, I eagerly await the next one. I relate this enthusiasm to three points. Firstly, the summit provides the ideal setting to connect with influential figures in the telecommunications industry. Secondly, I appreciate how the event consistently stays at the forefront of technology, adapting to innovative discussions relevant to our daily activities. Thirdly, the summit's timing allows us to delve into upcoming trends for the coming year. I anticipate participating, especially considering Telecom Review's expanding presence beyond the Middle East and Africa.



**Kayahara
Masayuki**
GM, Service
Provider Solutions
Department, NEC



I believe Telecom Review is one of the most influential media sources across the globe; including good quality content and a good quality of participants. Telecom Review is giving us a good chance to share our vision and solution. So for us, it is very important to attend such an event—to be connected with the key partners and key customers, as well as to propose the right solutions and the right vision toward the future.



Elias Saab
CCO, Sofrecom



The Telecom Review Leaders' Summit is a unique place where global and regional ICT and telecom leaders reunite annually. It's always a pleasure to connect with partners, customers, and vendors from the region. This year was no exception. All the sessions were truly enriching and I had the opportunity to moderate a panel where we discussed the importance of sustainability and digital transformation at length. I'm looking forward to attending the event next year too.



Stelios Savvides
CTO, Vodafone
Oman



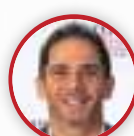
It's an absolute pleasure to be back at the Telecom Review Leaders' Summit this year. The event consistently addresses relevant industry challenges, fostering collaboration among senior leaders, operators, and telecom partners. Meeting key players in one location facilitates valuable interactions, socializing, and the exchange of insights with colleagues navigating similar experiences. The event's focus on crucial topics and engaging panels makes it a standout occasion. I am genuinely pleased to participate in this significant gathering once again this year.



Samer Geissah
Director
Technology
Strategy and
Architecture,
TELUS



The Telecom Review Summit's 17th edition here in Dubai has been a wonderful experience for meeting the right executives. The team diligently strives to generate valuable content, pose pertinent questions, and facilitate meaningful debates. I believe this is the platform specifically designed for sharing experiences, mutual learning among participants, collaboration between operators and partners to discover common solutions, and ultimately drive continuous development. It's a great forum to be at, and if you haven't been here before, you need to be here for the next one.



Rabih Farhat
Founder and
Managing
Partner,
Related



Telecom Review has been doing amazing work and an amazing job when it comes to gathering leaders from the ICT and technology industry. Over the years, the evolution of this summit has been remarkable. The attendees, the quality of the panels and speeches, and the insights we gathered from this event were really very rewarding (especially for those of us who are technology providers or industry leaders). I really want to wish the team at the Telecom Summit good luck, and I encourage them to keep doing an amazing job, keep evolving, and provide the best for both the industry and us, the attendees.



Alain Sanchez
CISO, Fortinet



For me, Telecom Review is one of the most prominent and influential groups in the extended communication telecommunication industry. It crystallizes a cultural community of leaders and people, who are using carrier-grade networks to transport nothing less than advanced digital transformations in every aspect—technological, people, events, solutions—into one telecom group. And that is absolutely remarkable.



Georges Jaber
Vice President
Wholesales and
BD, Salam



Telecom Review has become one of the biggest global brands and platforms in the telecom industry. The Summit is an excellent platform to meet our colleagues and partners from the ICT industry. It's also an event that happens yearly, where we can mingle on a casual basis with senior-level people from the industry.



Dr. Lidia Stepińska-Ustasiak
Public Affairs
Advisor, Polish
Chamber of
Commerce



I am impressed by the ambitious agenda of this event, addressing numerous challenges that are universal across all the regions I have the pleasure of collaborating with. Congratulations to the organizers for the fantastic agenda and atmosphere of the event; where we can share our knowledge and experience and openly share our concerns related to the future of our sector.



Rashid Alahmedi
Chief Operating
Officer, InfraX -
Digital DEWA



We are happy to be part of the Telecom Review Leader's Summit. It's a very important event that ensures collaboration between different private players in the telecom industry. It's a great forum to be part of. We are so proud and happy to be part of this edition. We are looking forward to participating in future events and being part of it in the near future.



Yahia Sefraoui
Chief Digital
& Data
Transformation
Officer, inwi



It has been a fantastic opportunity to connect with colleagues from various areas, spanning different geographies. We've been able to learn about the latest trends, understand what's happening in different regions, and explore the challenges we face on a database basis. This experience allows us to identify innovative ideas that we can incorporate into our business. Connecting with these individuals, sharing ideas, and discovering new opportunities has been truly enriching.



Danial Maussoof
Head of Sales
for Mobile
Networks MEA,
Nokia



I'm very pleased to be here at the 17th Telecom Review Leader's Summit. It's a pleasure to be in the company of industry colleagues, partners, and customers, absorbing the vibrant atmosphere. Serving on the speaking panel and participating as an attendee has been a true privilege, allowing me to contribute to discussions on new technology innovations across various sectors. Although it's my first time attending in person, I've always felt connected in spirit, given the presence of my team and other colleagues from Nokia. Witnessing it firsthand is an absolute pleasure. Events like these should become a standard for driving industry innovation and promoting collaboration in this region.



Barry Graham
VP of Marketing at
OpenSignal



Telecom Review is doing a great job of bringing together leaders from across businesses. And we're having interesting and stimulating conversations about what's going on in the market and what matters to operators as well as their customers.



Osman Sultan
Chairman,
Smile Telecoms
Holding



I had the privilege of witnessing the success of Telecom Review. It has established itself as one of the most credible specialized media platforms in the region.



Tamer Bdran
VP, ICT & Public
Safety, NEC



I personally have been to many telco events around the globe. What I like about this event is the quality of the contents and the quality of participants. I feel like there is quality time with relevant industry leaders. Not to mention the selection of content and subjects. I would say that the credibility of the committee that prepares the awards is a culmination of all these factors working together. But, overall, we will continuously participate as we see the value of this event.



Denis Bernaert
VP Strategic
Telco EMEA,
Salesforce



It's really great meeting CEOs from the industries such as telecom and ICT here in the Middle East. I think it is key because there are interesting subjects to discuss.



Sameh Sobhy
Managing
Director Middle
East, Turkey &
Africa at PCCW
Global



We are proud to have been one of the first partners to engage with Telecom Review. Year after year, Telecom Review has proven to be an exceptional platform that brings together CXOs from various telecom operators, vendors, and providers. This unique gathering of decision-makers grants us invaluable opportunities to meet face-to-face with industry leaders. It allows us to showcase our new technologies and collaborate with partners to stay at the forefront of innovation. Telecom Review's commitment to gathering these influential individuals in one place is commendable. The decision to extend the event from one day to two days has further enhanced the experience and solidified Telecom Review's position as a leading media platform in the industry.



Emaad Ahmad
Principal Solution
Consultant
& Network
Architecture
Transformation
Chief Expert,
Huawei



It's a global event— an event where we see the industry leaders coming together. The focus is on syncing network and technology with the environment and the overall ecosystem.



Zakaria Chouaib
Managing
Director Africa
and ME, PMP
Strategy



The Telecom Review Leaders' Summit is an excellent opportunity to meet decision-makers in the region, to talk about emerging trends in the telecom and ICT industry, to discuss some of the challenges they are facing, and to explore future opportunities. So at PMP strategy, we are really proud to be the knowledge partner for this year's edition. We are looking forward to future editions. Toni Eid and the Telecom Review team are doing a great job building this platform to share ideas, and we will be happy to come again in future editions.



Jan Holzberg
CCO, Vodafone
Oman



Attending the Telecom Review Leaders' Summit is an exceptional experience and having participated for the fourth-consecutive year, it provides a unique opportunity to reconnect with industry leaders across diverse domains. The event not only serves as a source of inspiration for cutting-edge innovations but also facilitates the sharing of our successes as the third-entrant in Oman. The two days of intensive conversations and debates make the Telecom Review Leaders' Summit an exceptional and highly recommended event for any telecom leader. Looking forward to seeing you in 2024.



Rana Hajir
Global Telco
Solutions GTM
Strategy and
Transformation,
HPE



I have been attending the Telecom Review Leaders' Summit for the last 12 years. This is the only conference that I never miss. I came here for many reasons. The most important is that you stay up-to-date on technical advancements and know exactly what's happening. They only invite high-profile, highly-skilled people not only from the UAE but across the world. I like to come every year and say 'hello' to people that I don't get to connect with except through the Telecom Review Leader's Summit once a year. The Summit covers different geographical regions, letting you know what is happening in MEA, Africa, Europe, and North America.



Maria Stebneva,
Global Head of
TMT, Luxoft



It was such a tremendous pleasure to be here. Thank you so much to Toni and his team for inviting me to this event. This event is unique because it brings all C-level leaders of the region under a single roof. I haven't seen it elsewhere. Here, everyone gathers in one room, and they are all very knowledgeable and proactive. I learned so many things during the last two days which I hadn't learned during the last year. I would definitely love to come again.



**Luis del Valle
Alemán**
CRO, Atrebo



I'm very proud to be at the Telecom Review Leaders' Summit for another year. I've been attending the event for the last 10 or 12 years. The event gets better year after year in terms of the audience and the number of companies and relevant people that you can meet here. Telecom Review has become a pivotal figure in the ICT ecosystem in recognizing and facilitating the discussion, involving the vendors and all the operators. I wish you the best and I hope that this will carry on for many, many years to come.



**Saleem
Alblooshi**
CTO, du



The Telecom Review Leaders' Summit is one of the important summits and events that happen in the telecom industry in the region. It brings together the leadership of telecoms and all the associated ecosystems, from the standards bodies to the vendors. The leaders gather in one venue where we discuss our concerns and related issues, and address them together. It's one of the most important networking sessions for addressing our capabilities, and it is an opportunity to understand each other and what is happening in our industries. It's a valuable experience to learn from each other's experiences.



Dr. Nadine Akkari
Associate Professor,
Jeddah International College



Telecom Review is a success story on its own. It's a journey of unlimited knowledge; full of innovation, creativity, and dedication. Attending this event is really one of my yearly goals. It's not only a meeting with like-minded people, it's also about sharing knowledge, pushing the boundaries of knowledge, and discussing more and more challenges in the ICT sector. It really is a great opportunity to be here and to navigate the challenges within ICT and the telecom sector.



Jasim Al Awadi
Acting CICTO,
du



Telecom Review has created an extensive platform for telecom leaders. Today, under this dome, you can meet and interact with a lot of influential people in the industry. We get the opportunity to share information related to the new advancements made in the sector. The Telecom Review Leaders' Summit is the right place—where we can gather every year. It's always a pleasure to be here.



Nouran Tawfiq
Brand,
Corporate Communication
& PR Director,
Salam



I think we are all aware of the weight that the Telecom Review publication and its different streams holds. Salam comes from a very long collaborative relationship with the publication, making it essential for us to attend. It was very insightful, and I was exposed to a rich amount of information in different sessions, showing that the digital transformation industry is growing impressively. It was a beautiful experience, and I look forward to the coming editions and more success and collaboration with the publication.



Michal Patryk Debicki
Field CTO,
Reailize



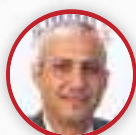
What stood out to me upon arrival is the remarkable coverage from the operator's perspective, especially at the CX level. It's impressive that it's not solely focused on telecom but also has extensive ICT coverage. It's intriguing to learn about the interactions with satellite operators, with whom we also collaborate, and engaging in meaningful conversations with various stakeholders is something I value a lot.



Harrison Lung
Group CSO, e&



I think it's a great opportunity to reconnect with friends and colleagues, as well as engage with a number of panelists and keynote speakers to share the key insights.



Samer Mehaidly
VP Business Development,
Telcovas



This was my first year attending the Telecom Review Summit, and I wasn't sure what to expect. The attendees were fantastic—there were more experienced telecom professionals than I anticipated. The topics and panels during the summit were spot-on and particularly relevant for someone like me who has been working in the telecom industry for many years. The organization was excellent, with tight schedules and seamless logistics for accessing the venue, entertainment areas, and routes. Overall, it was a very positive experience.

etisalat by e& Completes the World's First Ultra-High-Speed 1.6Tbps Optical Solution Trial



etisalat by e& has declared the successful conclusion of the initial trial for the world's first 1.6Tbps per wavelength technology on the Optical Transport network, representing a significant achievement in the ultra-high-speed optical industry.

Advancements in Transmission Technologies

This technological milestone showcases that etisalat by e& is well-equipped for advancements in transmission technologies, paving the way for a 100T network platform dedicated to hyperscale cloud computing. This achievement further accelerates the 10 Giga UAE initiative, focused on delivering 10 Gbps connectivity to individuals, homes, and enterprises.

etisalat by e& continues leading the optical industry with advanced innovative solutions and early technology adoption. The 1.6Tbps per wavelength technology tested by etisalat by e& in collaboration with Huawei is part of its efforts to provide the most advanced and robust network in the UAE.

Khalid Murshed, Chief Technology & Information Officer, etisalat by e&, said: "We are committed to delivering a premium experience to our customers and are excited to bring this latest optical technology to the UAE. The 1.6Tbps innovation is a result of our focus on delivering outstanding customer experiences. This is part of our network transformation journey to provide some of the fastest energy-efficient connectivity for hyper scale computing, while also surpassing customer expectations by providing superior experience."

Network Capacity

The network currently possesses the

capacity of 1.6Tbps per wavelength on the data center OSN 9800 Kepler platform. This advancement not only caters to the increasing capacity demands of cloud-based business services, improved 10G home broadband, and advanced 5G services but also results in a 65% reduction in per-Gbit power consumption. This establishes a robust foundation for modern digitalization and a future that prioritizes environmental sustainability.

This impressive speed of 1.6Tbps per wavelength will help etisalat by e& fulfil its promise to deliver the best-in-class optical network in UAE. With the integration of the 1.6Tbps technology, alongside Super C+L and CDC-F solutions, etisalat by e& optical network is poised to make significant progress toward achieving 100T and a flexible optical network. This advancement positions the network to meet the evolving demands of advanced 5G mobile networks and fulfill the futuristic requirements of customers' businesses seamlessly.

Zain Collaborates with GCC Telco Alliance to launch the 'Sustainability Innovation Hub'



Zain announced the establishment of the Sustainability Innovation Hub in collaboration with the GCC Telco Alliance members along with e&, STC, Ooredoo, Beyon, Omantel, du, and other key regional and international partners. This initiative is driven by the urgent need to address climate change and expand access to affordable and reliable energy.

Pioneering a Low-Carbon Economy

As the global energy landscape undergoes a significant

transformation, telecom operators are actively seeking alternatives that enhance energy efficiency and reduce their carbon footprint. The Sustainability Innovation Hub aims to bridge the gap between technology, telecom innovation, and climate action for a low-carbon economy. It will bring together cutting-edge technologies, visionary experts, and collaborative efforts to tackle one of the most critical challenges faced by the telecom industry today.

The primary focus of the Sustainability Innovation Hub will be to develop and implement innovative power solutions that are cost-effective, reliable, and environmentally friendly. By harnessing the power of renewable energy sources, such as solar and wind, the initiative will enable telecom operators to reduce their reliance on traditional

fuel sources and move toward a greener future. This transition will not only lead to substantial long-term cost savings but will also play a significant role in protecting the environment, aligning with the broader sustainability goals of the sector.

Sustainability Innovation Hub Objectives

The Sustainability Innovation Hub has been established with a clear set of objectives aimed at revolutionizing the telecom industry's approach to energy consumption and sustainability. The hub will foster a collaborative environment where telecom operators, technology providers, and research institutes can share knowledge, resources, and expertise; driving the development of innovative power solutions tailored to the specific needs of the telecom industry.



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du Sets the Standard with Unparalleled Connectivity Driven by 5G Standalone Technology



du, from Emirates Integrated Telecommunications Company (EITC), announced the launch of its next-generation 5G Standalone (SA) technology. This cutting-edge technology marks a significant advancement in wireless communication, pushing the boundaries of ultra-low latency and robust security features.

The adoption of 5G SA technology brings a multitude of benefits to consumers and enterprises alike. With faster download speeds, smoother media streaming, and overall improved network performance, du's 5G SA revolutionizes the way users experience

wireless connectivity. Furthermore, enterprises can leverage network slicing technology to customize network applications according to their specific needs.

5G SA technology plays a crucial role in various sectors and applications. It enables real-time responsiveness for gaming, medical services, Industry 4.0, industrial IoT, VR, AR, public safety, and Voice over New Radio (VoNR). With VoNR, consumers can enjoy high-quality video calls and access bandwidth-intensive services seamlessly on their mobile devices. Furthermore, Enhanced Fixed Wireless Access (FWA) connectivity offers significant benefits, particularly for Small and Medium-sized Enterprises (SMEs).

A New Standard in Internet Connectivity

Karim Benkirane, Chief Commercial Officer at du said, "The 5G Standalone technology is more than just an upgrade; it's a fundamental shift in how data

is transmitted and processed. Unlike previous generations, this technology enables network slicing, edge computing and Mobile Private Network; allowing for personalized solutions and new drive use cases in real-time analytics, public safety, and even remote healthcare, while giving customers a better and more consistent service experience. It's not merely about speed and latency; it's about creating a smarter, more responsive infrastructure for tomorrow's technological demands."

Designed to transform how consumers interact with IoT devices, stream content, and communicate, 5G Standalone technology is an integral part of du's network infrastructure. It establishes a new standard in internet connectivity, offering rapid data transfer speeds, lower latency, higher efficiency, more reliable connectivity, and lower device battery consumption that outperforms previous network generations.

stc Achieves Substantial Progress in Advancing 5G



stc is making a substantial investment that aims to propel its 5G capabilities into the next era of advancement. This strategic initiative is designed to solidify the company's position as the leading regional 5G operator. The investment is carefully directed towards expanding the 5G network, reinforcing the company's leadership, and enhancing its standing in the competitive 5G market.

stc has reconfirmed its commitment by expanding its 5G network and

advancing to the next phase of 5G technology. The company has successfully implemented and commercially introduced the latest 5G advanced solutions, covering 4 multiple layers of the NR (New Radio) network. This progress highlights stc's significant efforts in constructing a robust infrastructure to support 5G services.

Through the extensive deployment of a 5G advanced network, stc empowers users to maximize the benefits of multi-band NR carrier aggregation (CA) technology within their 5G networks. This forward-looking strategy facilitates the amalgamation of multiple frequency bands, including new layers in the C band, as well as mid and low bands spectrum. This advancement is poised to enhance network speed and responsiveness, resulting in improved overall network performance and

consistent high-speed connectivity for users.

In tandem with its ongoing 5G deployment, stc is actively positioning itself as a trailblazer in the commercial utilization of 5.5G technology. This forward-thinking approach exemplifies the company's preparedness to embrace forthcoming advancements beyond 5G— and is expected to deliver even greater enhancements in speed, capacity, and connectivity. stc's proactive stance underscores its commitment to staying at the forefront of technological progress and providing cutting-edge services to its customers.

stc's dedication to expanding its 5G network and embracing upcoming advancements demonstrates its commitment to delivering state-of-the-art telecommunications services to its customers and remaining at the forefront of technological innovation.



Wi-Fi 6: Enhancing Businesses Through Network Capacity, Security and IoT

In today's fast-paced business environment, staying connected and having reliable access to the internet are crucial. With the introduction of Wi-Fi 6, businesses now have an opportunity to significantly enhance their efficiency by leveraging its exceptional capabilities.

Wi-Fi 6, also known as 802.11ax, goes beyond its predecessors by offering unprecedented network capacity. This means that even in highly congested areas with numerous devices connected simultaneously, Wi-Fi 6

ensures a smoother and more responsive network experience. This increased capacity allows businesses to effortlessly support a growing number of users, which is especially important in offices, conference rooms and public spaces where connectivity demands are high.

But Wi-Fi 6 doesn't just excel in terms of capacity; it also provides advanced security features. Businesses are

increasingly becoming targets of sophisticated cyberattacks, making the need for robust network security more pronounced than ever. Wi-Fi 6 introduces WPA3 encryption, which offers stronger and more secure protection against unauthorized access and attacks. This enhanced security gives businesses peace of mind, knowing that their sensitive data and confidential information are safeguarded.



Furthermore, Wi-Fi 6 seamlessly integrates with the Internet of Things (IoT), the network of interconnected devices that is revolutionizing various industries. With the exponential growth of IoT devices, businesses can leverage Wi-Fi 6 to effortlessly handle the increased device density and traffic. This allows for efficient implementation of smart devices and applications, enhancing automation, data collection and analytics. Whether it's in manufacturing, healthcare, retail or any other sector, Wi-Fi 6 enables businesses to fully capitalize on the potential of IoT technology.

By embracing Wi-Fi 6, businesses can optimize their operations, improve user experiences and propel innovation. With its exceptional network capacity, robust security features and seamless support for IoT, Wi-Fi 6 opens up a world of possibilities. It empowers businesses to embrace digital transformation, enabling them to stay ahead of the competition and meet the growing demands of the modern era.

Network Capacity and Performance for Seamless Connectivity

Enhanced network capacity and

performance in Wi-Fi 6 have become game-changers for businesses seeking to accommodate a larger number of devices while maintaining optimal performance. This advanced connectivity technology offers increased capacity, allowing organizations to connect more devices simultaneously without experiencing network congestion or degradation. With Wi-Fi 6, businesses can now scale up their operations and support a greater volume of employees, customers and Internet of Things devices.

One key advantage of Wi-Fi 6 is the reduction of network congestion. The improved network capacity enables businesses to cater to a significantly larger number of users, providing seamless connectivity for everyone. This means a smoother and more reliable experience for employees and customers alike. Gone are the days of slow-loading webpages or buffering videos due to overcrowded networks. Wi-Fi 6 ensures that all connected devices receive the necessary bandwidth, resulting in faster and more efficient data transfers.

Another benefit of Wi-Fi 6 is the enhanced data transfer speeds. This



By embracing Wi-Fi 6,
businesses can optimize
their operations, improve
user experiences and
propel innovation



allows businesses to handle larger amounts of data more efficiently than ever before. Whether it's large file transfers, video conferencing or data-intensive applications, Wi-Fi 6 ensures that businesses can meet demanding connectivity requirements without any bottlenecks. The improved speeds enable real-time collaboration, seamless cloud access and faster application response times, ultimately boosting productivity and efficiency in the workplace.

Real-world examples abound of organizations leveraging Wi-Fi 6 to handle high device density and demanding connectivity requirements. For instance, in crowded areas like airports, stadiums or shopping malls where large numbers of devices are accessing the network simultaneously, Wi-Fi 6 can handle the increased demand with ease. Businesses in industries such as hospitality, healthcare, education and retail can also benefit from Wi-Fi 6 by providing reliable and high-performance connectivity to a large number of users within their facilities.

In short, the enhanced network capacity and performance of Wi-Fi 6 offer numerous advantages for businesses. With reduced network congestion, improved data transfer speeds and the ability to handle high device density, organizations can scale up their operations while ensuring seamless connectivity for all users. Adopting Wi-Fi 6 enables businesses to stay ahead in this increasingly connected world, enhancing productivity and user experiences.

Benefits of Wi-Fi 6 and WPA3 Encryption in Safeguarding Sensitive Data

Network security has become a paramount concern for businesses. As organizations increasingly rely on digital networks to store and transmit sensitive data, the risks of cyber attacks and data breaches continue to grow. Wi-Fi 6 offers strengthened security features to address these challenges and ensure the protection of valuable information.

One of the key advancements in Wi-Fi 6 is the implementation of WPA3 encryption. This new security

protocol provides an enhanced level of protection against unauthorized access and eavesdropping. With stronger encryption algorithms and improved authentication mechanisms, WPA3 significantly raises the bar for network security.

By leveraging Wi-Fi 6's advanced security features, businesses can fortify their network defenses and safeguard their data from malicious activities. These measures are particularly crucial in sectors that handle sensitive information, such as finance, healthcare and government institutions.

The advantages of stronger security measures extend beyond mere data protection. By establishing a secure network infrastructure, businesses also build trust with their customers and stakeholders. Enhanced security capabilities instill confidence in clients, assuring them that their private information remains safe and protected.

In summary, Wi-Fi 6's strengthened security features, including the adoption of WPA3 encryption, offer a robust defense against potential threats. Businesses can rest assured that their valuable data is safeguarded, building trust and maintaining the integrity of their operations.

IoT Integration and Business Applications

The Internet of Things has revolutionized the way businesses operate, offering unprecedented connectivity and automation opportunities across various industries. By enabling devices to communicate and exchange data, IoT integration has paved the way for increased efficiency, improved decision-making and enhanced customer experiences.

One essential aspect of successfully implementing IoT in businesses is ensuring seamless device integration into existing networks. This is where Wi-Fi 6 comes into play, as it is designed to handle the growing number of IoT devices and their data requirements. With its increased capacity, improved speed and advanced security features, Wi-Fi 6 provides a reliable foundation for supporting IoT deployments.

The combination of IoT and Wi-Fi 6 presents numerous business applications, such as automation, data collection and analytics. For instance, manufacturing companies can connect their machines and equipment to collect real-time data, optimizing production processes and predictive maintenance. Retailers can leverage IoT devices to track inventory levels, enable personalized customer experiences and improve supply chain management.

Overall, IoT integration supported by Wi-Fi 6 offers a multitude of opportunities for businesses to enhance operations, gain valuable insights and stay ahead in today's dynamic market landscape. **TR**



By leveraging Wi-Fi 6's advanced security features, businesses can fortify their network defenses and safeguard their data from malicious activities



Beyond ONE introduces FRiENDi Pay



Beyond ONE™, the digital services provider and TMT-sector (technology, media, telecommunications) investment and operations company, has announced the launch of FRiENDi Pay— a digital mobile wallet service that will simplify remittances, reduce costs, and increase efficiency for FRiENDi mobile subscribers in Saudi Arabia.

Simplifying Remittances

Remittances play a crucial role in the banking sector in Saudi Arabia, especially with its 40 percent expatriate population (13.4 million), many of whom send money back to their home countries every month. FRiENDi Pay introduces a new level of convenience, transparency, and peace of mind for its customers.

The service enables access to banking services and fosters financial inclusion for a demographic that hasn't always been accommodated. With seamless and instant international money transfers to countries that include Bangladesh, India, Pakistan, and the Philippines, among others, FRiENDi Pay offers cash-to-account (CTA), account-to-account (A2A), and wallet transfers.

Incorporating fintech services into FRiENDi Mobile's digital platform is part of Beyond ONE's overarching mission to enrich, streamline, and broaden the horizons of its customers, regardless of their location. More digital services are in development for all its brands, with a primary focus on closing gaps and fostering communities, challenging the existing industry norms.

Markus Tagger, Group CEO, Beyond ONE, said: "Beyond ONE empowers its customers to take the lead in as many decisions as possible, and we

do this by helping to build and reshape their digital ecosystems so that they are more connected, more inclusive, and more enriching, but always as simple as possible. FRiENDi Pay is an excellent example, and we are delighted to introduce it to our customers in the Kingdom. It is also just the beginning of the suite of innovations that Beyond ONE will be bringing to the worlds of FRiENDi Mobile and Virgin Mobile, in the Middle East, Latin America and beyond."

Adeel Niazi, Group Chief Fintech Officer, Beyond ONE, said: "Successfully launching FRiENDi Pay is a milestone moment for us; with more than 875,000 downloads of the app already, there's a real need for instant, user-friendly financial services that provide immediate benefits. Not only are we making it as simple, convenient, and accessible as possible to initiate payments, FRiENDi Pay is also adding immediate value by waiving transfer costs for the first transaction."

Fortinet Enhances its Extensive Operational Technology Security Platform to Lead the Industry



Fortinet, the global cybersecurity leader integrating networking and security, has unveiled its latest release of integrated operational technology (OT) security solutions and services. These additions further distance Fortinet's industry-leading OT Security Platform from the rest of the market.

"We understand that OT differs significantly from traditional IT systems, and that's why our OT Security Platform was purposefully built to provide integrated protection and risk management specific to industrial

environments," said John Maddison, Chief Marketing Officer and EVP, Product Strategy at Fortinet. "Rising attacks on critical infrastructure have made OT security more important than ever before. With today's news, Fortinet continues to empower customers with the most sophisticated OT solutions and intelligence in the industry."

The Need for Integrated OT-Specific Security

The number of industrial devices connected beyond their network boundaries is rapidly increasing, and CISOs now face skyrocketing risks across their OT environments. In fact, Fortinet found that 75% of OT organizations reported at least one intrusion in the last year, and approximately 33% reported falling victim to a ransomware attack. To solve this challenge, organizations need an integrated security approach designed specifically for industrial solutions that

enables policy enforcement across the entire attack surface, consolidates point products, and reduces operational overhead.

Bolstering the Fortinet OT Security Platform with New and Enhanced Offerings

The Fortinet OT Security Platform is an integrated portfolio of cybersecurity products, solutions, and security services designed specifically for industrial networks, and powered by real-time OT threat intelligence. Because the OT Security Platform is part of the Fortinet Security Fabric, it empowers customers with deep visibility across their entire environment and securely facilitates IT/OT convergence. The platform also gives organizations the ability to implement a zero-trust model within OT environments, including secure remote access to OT assets and systems for remote employees and contractors.

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The Transparency Gap: Concern Grows for AI Users and Regulators

The advent of AI has sparked enthusiasm for its technological promise. However, it has also raised apprehensions regarding the potential societal implications. According to a study published that aims to guide policymakers in regulating the rapidly growing technology, today's well-known artificial intelligence models lack much-needed transparency.

Advocating for and building better transparency and responsibility in AI will mean supporting AI models that have been thoroughly tested. Such transparency must be fully explainable to customers and employees alike, and

ethical considerations must be firmly in place.

Now is the time to ensure that AI models are built the right way and are therefore of maximum benefit to all of humanity.

The Imperative for Transparency

Transparency is the first step towards

identifying and mitigating biases and promoting a fairer use of AI.

The ethical rationale for AI transparency is grounded in two core principles: fairness and accountability. AI systems, which are frequently employed in decision-making, have the potential to inadvertently perpetuate bias when they are initially trained on biased data.

The absence of transparency conceals these biases, resulting in unjust outcomes. In terms of accountability, transparency enables the examination of AI decision-making processes. In situations where AI decisions lead to adverse consequences, transparency facilitates the tracing of events and the identification of any fault or negligence.

Stanford University researchers have noted that “less transparency makes it harder” for “policymakers to design meaningful policies to rein in this powerful technology.”

The Foundation Model Transparency Index graded 10 of the biggest AI models on 100 different metrics of transparency. A researcher familiar with such assessments has stated that companies should strive for a score between 80 and 100%. It is thus disheartening that the best score was that achieved by Meta’s Llama 2 at only 54%. Similarly disappointing, OpenAI’s GPT-4 scored 48% while Google’s PaLM 2 only scored 40%, just above Anthropic’s Claude 2 at 36%.

Moreover, the Stanford study said that no company provides information about how many users depend on their model or on the geographic locations where they are used. Most AI companies do not even disclose the amount of copyrighted material used in their models, the researchers lamented.

Reduced transparency poses challenges for various stakeholders. These include: businesses assessing the suitability of commercial foundation models for applications; academics relying on these models for research; policymakers crafting effective regulations for this influential technology; and consumers seeking to grasp model constraints or address any resulting harm.

Only by employing appropriate tools, guidelines and governance do these important AI developers have the opportunity to establish an ethical AI ecosystem that upholds data privacy while simultaneously fostering innovation.

Regulations and the Drive for AI Transparency

Transparency has become a paramount policy concern for policymakers in the

EU, the US, the UK, China, Canada and, indeed, the G7 as a whole. According to an AI solutions expert, the essence of transparent AI lies in the ability to adequately explain and communicate the outcomes of an AI model. It encompasses three key dimensions: the explainability of technical components, the governance of systems and the transparency of impact.

One of the primary drivers behind the push for AI transparency and explainability is the establishment of trust in AI systems. This offers users and stakeholders a higher level of confidence in the system’s responsible use. Understanding the decisions a system makes and the processes behind those decisions also empowers individuals to have more control over their choices, enabling informed consent regarding their interactions with the system.

The potential implications of AI have also raised concerns at the political level, prompting countries worldwide to develop national AI strategies and announce various AI-related policy measures. Many of these initiatives aim to address public apprehension about losing control in the face of an AI revolution. With so many incidents of AI exhibiting unintended behaviors, the demand for transparent and responsible AI is on the rise, and the provision of a policy safety net is thus following suit.

The need for AI transparency is underscored by certain unfortunate instances, such as autonomous vehicles displaying risky behaviors, deepfakes impacting elections, algorithmic systems erroneously rejecting patient claims, AI voice technology generating conspiracy videos and chatbots providing harmful advice to individuals seeking treatment for eating disorders.

In a timely response, the European Union has introduced the Artificial Intelligence Act (EU AI Act), a foundational law establishing transparency standards for certain AI systems across its member states.

The EU AI Act ensures that AI systems used in the EU adhere to safety, transparency, traceability, non-discrimination and environmental

standards. Specifically, generative AI models like ChatGPT must comply with transparency requirements, including disclosing AI-generated content, designing models to prevent illegal content generation and publishing summaries of copyrighted data used for training.

Article 52 of the EU AI Act is one such pivotal element in this necessary protection. Among other aspects, the article emphasizes the importance of transparency in AI systems that recognize emotions or categorize biometrics, acknowledging the escalating impact of these systems on users and highlighting the need for awareness to safeguard rights and privacy. Such proactive measures pave the way for a future replete with more transparent and accountable AI systems, a benefit for companies, users and society at large.



Now is the time to
ensure that AI models
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of humanity





Additionally, the Group of Seven (G7) has called for collective action on AI, convening to establish an AI code of conduct for developers in order to promote safe, secure and trustworthy AI worldwide. The plan proposes that companies should publicly disclose reports on the capabilities, limitations and potential misuse of the AI systems they develop.

Transparency Essential for Trust and Accountability

As technology companies rush to deploy their AI models and as generative AI becomes increasingly prevalent in various products, a notable contrast emerges with the guarded nature of the most powerful models. In certain instances, limited access to these models is only available through a paid website, leaving developers and researchers in the dark about the intricate details of their inner workings.

Highlighting the fundamental significance of transparency, a special adviser to the European Commission emphasizes that it is not merely an important ideal but a crucial element for effective AI accountability. The

absence of transparency impedes researchers from scrutinizing foundational models for potential biases or security threats. Moreover, regulators and the public remain uninformed about the inherent risks of AI technologies, particularly in crucial sectors like healthcare and law enforcement.

In the corporate sphere, employees and executives generally believe that AI can enhance operational efficiency. However, a report from the Work Innovation Lab reveals a critical discrepancy: many companies are not transparent about the purpose and usage of AI, potentially hindering recruitment efforts and deterring talent acquisition. The report notes that 85% of employees consider AI-related factors when joining a new company, with transparency about AI use being a paramount concern. However, only 32% of employees feel their company has been transparent about AI use, while a higher percentage of executives (44%) believe their companies have demonstrated sufficient transparency in AI implementation. The survey, featuring responses from over 4,500

knowledge workers in the US and UK, sheds light on the growing importance of transparency in organizational AI practices.

Similarly, a broader survey encompassing 14,300 consumers and business buyers across 25 countries reveals that 58% of UK customers believe that enhanced transparency regarding companies' use of AI could significantly bolster their trust in the technology. This underscores a shared sentiment that transparency is a key factor in fostering trust and confidence in the rapidly evolving landscape of AI applications.

Future Outlook

The push for AI transparency appears focused on key characteristics: heightened regulatory scrutiny; technological advancements in interpretability; increased global cooperation; and a growing emphasis on ethical and responsible AI practices. Such an overview represents no small task, to be sure. But the positive evolution of these trends stands to significantly influence how AI systems are developed, deployed and trusted in the years to come. **TR**

Western Canada's First Major Cloud Boost Comes From AWS

With the launch of the new AWS Canada West (Calgary) Region, AWS becomes the first major cloud services provider to have an infrastructure region in Western Canada.

"With the launch of the AWS Canada West (Calgary) Region, customers and partners across Canada now have additional infrastructure to deploy applications with greater resilience, availability, and lower latency, while enabling more customers to innovate with advanced technologies like artificial intelligence to help fuel economic development across the country," said Prasad Kalyanaraman, VP of Infrastructure Services at AWS. "AWS is committed to helping organizations of all sizes and across all industries increase agility and drive innovation. We are proud to deepen our investment by driving local job creation, building cloud skills, and creating opportunities for growth and collaboration with our local customers and AWS Partners."

AWS Canada West (Calgary) Region provides customers with more options to run workloads with even greater resilience and availability, securely store data in Canada, and serve end users with even lower latency. The

AWS Canada West (Calgary) Region consists of three Availability Zones and joins the existing AWS Canada (Central) Region, which opened in December 2016.

According to a new AWS economic impact study, AWS will invest more than \$17.9 billion (approx. CA \$24.8 billion) in its infrastructure in Canada through 2037, and support an average of more than 9,300 full-time equivalent jobs annually.

"Our government is committed to positioning our domestic industries for long-term growth and sustainability. The powerful digital infrastructure being established by Amazon Web Services near Calgary, Alberta will support Canadian developers, startups, large enterprises and academic institutions in their work by enabling access to AWS's powerful advanced cloud technologies," said Hon. François-Philippe Champagne, Minister of Innovation, Science and Industry, Government of Canada. "This means faster and more reliable access to cloud services to support computing, storage, networking, analytics, artificial intelligence, mobile, hybrid, media, and security, which helps to secure well-paying jobs across many new industries."

Rogers Canada Sells 829 Million of Assets

Rogers Communications announced the sale of all of its shares of Cogeco to Caisse de dépôt et placement du Québec in a private transaction for \$829 million.

"This sale further demonstrates our commitment to strengthen our investment grade balance sheet and aggressively reduce our debt leverage ratio," said Tony Staffieri, President and Chief Executive Officer, Rogers. "We're tracking six months ahead on our deleveraging priorities and we're committed to reducing our debt

leverage ratio even further."

Accelerates Deleveraging Plans

With the sale of these Cogeco shares, the Company expects to achieve a debt leverage ratio of 4.7x by year end, compared to the expected 4.8x at year end announced on the release of its third quarter results. The Company's debt leverage ratio was 4.9x at the end of Q3. Today's sale proceeds are in addition to the previously announced divestiture of \$1 billion in non-core assets, predominantly real estate, that is expected to be completed in 2024.

Kenya's Communications Authority Appoints New Director General

The Communications Authority (CA) of Kenya's Board of Directors has appointed David Mugonyi as the new Director General, effective January 15, 2024. CA Board Chairperson Mary Mungai highlighted Mugonyi's extensive 23-year career in public service, media, and strategic communications, emphasizing his qualifications, including a Master's Degree in International Journalism and a Bachelor's Degree in Education.

Mugonyi, who previously led strategic communications for the Government of Kenya, particularly as the Head of the Presidential Communications Service, brings valuable experience as a seasoned professional. Mungai expressed confidence in Mugonyi's ability to contribute significantly to the authority's growth, citing his proven track record in handling the complexities of public service and strategic communications.

Acknowledging the outgoing Acting Director General for his dedicated service, Mungai welcomed Mugonyi to the critical leadership position. She affirmed the board's optimism about Mugonyi's leadership and highlighted the expectation that his expertise will guide the organization successfully into the future. The Communications Authority looks forward to collaborating closely with Mugonyi as it continues to play a pivotal role in shaping and regulating the communications landscape in Kenya.

Namibian Operators Fear Unregistered SIM Disconnection

The potential disconnection of unregistered SIM cards post-December 31 is anticipated to adversely affect telecom companies' earnings, according to Telecom Namibia and MTC.

The Namibian telecom subscriber identification initiative has witnessed efforts to register subscribers intensify as the deadline approaches. Telecom Namibia reports having registered 201,126 out of 417,646 subscribers, while MTC indicates 925,284 registered SIM cards out of approximately 2.5 million.

Expressing concern, Patience Kanguuehi-Kanalelo, MTC's head of legal and corporate affairs, emphasized the urgency of maximizing registrations before the impending deadline and hinted at the possibility of seeking an extension past December 31.

Beyond telecom operators, financial institutions are also apprehensive about the repercussions of the subscriber identification campaign on their revenue streams. Banks foresee losses when SIM cards are deactivated, as many individuals employ mobile phones for various transactions. They argue that disconnecting SIM cards may heighten the risk of fraudulent activities.

Despite industry concerns, the government remains firm on not contemplating an extension for the subscriber identification campaign, asserting that citizens of Namibia have had sufficient time to register their SIM cards.

Nokia Drone Networks: First FCC-Certified 5G-Connected Drone-in-a-Box Solution

Nokia and Rohde & Schwarz, a leading network measurement technology provider announced that the Nokia Drone Networks solution has been certified by the Federal Communications Commission (FCC). This marks the agency's first full certification of a native 4G/5G drone-in-a-box solution. The achievement represents a significant step in providing US customers a proven, industrial grade 4G/5G drone solution built for reliable Beyond Visual Line of Sight (BVLOS) operations. Going forward, Nokia will leverage its recently announced US partnerships for private LTE and 5G solutions to accelerate its market entry.

Drawing on an extensive history in telecom, Nokia prioritized robust and reliable connectivity in the Nokia Drone Networks solution. Highly resilient connectivity is critical to remote drone operation, real-time streaming of data collected during a drone mission, and BVLOS operation using a large set of 3GPP spectrum bands. Research and development efforts have pushed the boundaries in terms of RF design and connectivity performance. Innovative features such as full network connection

redundancy, multi-operator support and hot failover also differentiate Nokia Drone Networks in terms of operational reliability.

Nokia and Rohde & Schwarz originally joined forces in 2022 with an MoU to embed Rohde & Schwarz QualiPoc 4.9G/LTE and 5G network measurement capabilities into the Nokia Drone Networks platform, a first of its kind solution that expands use cases for customers with deeper knowledge around wireless network coverage and performance for more efficient utilization of their networks.

Extending the cooperation to device testing and certification, Nokia collaborated with Rohde & Schwarz to complete the FCC's rigorous requirements for R&D component testing. The R&S CMX500 radio communication tester from Rohde & Schwarz was utilized in the Nokia Bell Labs Global Product and Compliance Laboratory for extensive radiated and conducted emissions testing. The rich tool set of the R&S CMX500 and the flexible web-based R&S CMSquares user interface were instrumental in conducting comprehensive signaling protocol tests.

Fighting Dig Damage Trends Uphill Battle for Telecom

Telecom work is both causing the most damage and its facilities remain the most damaged when it comes to underground construction, according to the latest data collected by the Common Ground Alliance (CGA). This is a major cause for concern given the rise in fiber deployments over the next five years as projects around the country work to close the digital divide.

"There's been a 9.34% increase in damages reported by 811 centers," said CGA President and CEO Sara Magruder Lyle. "The top six damage root causes persistent year-over-year: No locate requests, not marked/located inaccurately, failure to maintain clearance, failure to pothole, improper excavation."

Lyle cited four key findings: (1) telecom has the most potential to impact US damage prevention systems, with 47% of telecom facilities damaged by digging; (2) growth and customer satisfaction are prioritized over prevention by many telecom stakeholders; (3) rather than focus on long-term national standardization strategies to reduce damages, telecom can achieve more timely results by improving internal practices and contracts; and (4) securing executive-level buy-in from telecom facility owner/operators on rigorous damage prevention standards will be necessary to reverse the upward trend of damages to US infrastructure.

Ciena and KT Launch South Korea's First 600G Nationwide Transmission Network

Ciena and KT have successfully completed the construction of South Korea's first nationwide 600G transmission network. This project, led by the South Korean telecommunications company, aims to address the growing data traffic from AI, cloud, and 5G, and prepare for future services like 6G.

Ciena's Transmission Network

The transmission network has been operational since September 2023 and covers over 1,000 km. It can transmit 600G per wavelength in long-distance segments, connecting major cities from Seoul to Busan, Gwangju, and Jeju Island.

To achieve this, Ciena's 6500 flexible grid Reconfigurable Optical Add/Drop Multiplexer (ROADM) photonic layer with WaveLogic 5 Extreme (WL5e) coherent optics, and Manage, Control and Plan (MCP) domain controller were utilized. This transmission route provides a solid foundation to handle the increasing bandwidth demands.

The Regional Managing Director of Ciena North Asia, Henry Kim, stated that Ciena has been a pioneer in

coherent optical technology, supplying equipment capable of delivering 100G and 400G services to domestic telecom operators.

Revolutionizing High-Capacity Traffic

One of the key advantages of this transmission network is its cost-effectiveness. By optimizing the utilization of resources, it offers an efficient and economical solution for meeting the ever-increasing data transmission needs. This cost-effectiveness is crucial in ensuring that businesses, individuals, and various industries can access and utilize high-capacity traffic transmission without incurring exorbitant costs.

Furthermore, the introduction of the 600G transmission network is expected to significantly enhance dedicated circuit services. These services are vital for enterprises and organizations that rely on secure and robust data connections for their operations. The increased capacity and efficiency of the network contribute to a more resilient and responsive dedicated circuit infrastructure, meeting the stringent requirements of modern businesses.

Dialog Axiata Launches Sri Lanka's First eSIM Service

In a pioneering move, Dialog Axiata, Sri Lanka's premier connectivity provider, has unveiled a groundbreaking feature that allows customers to effortlessly transition from conventional SIM cards to the more secure eSIMs using compatible Android or iOS devices. This marks a significant milestone as the first-of-its-kind service introduced in Sri Lanka.

As the prevalence of eSIM capabilities in Android and iOS devices continues to rise, Dialog has proactively addressed the growing demand by offering a user-friendly method for customers to embrace

this advanced and secure technology, accessible through their website and app.

Dialog Axiata's move to introduce this innovative eSIM service not only reflects the company's dedication to staying at the forefront of technological advancements but also underscores its commitment to providing enhanced connectivity solutions that prioritize both security and environmental responsibility. This forward-looking approach ensures that customers in Sri Lanka can experience the benefits of cutting-edge technology while minimizing their environmental footprint.

Japan Commits US\$16 Million Grant Aid to Boost Cambodia's Digital Transformation

Recent reports suggest that Japan has agreed to provide grant aid worth up to 2.3 billion yen (approximately US\$16 million) to Cambodia. This aid is intended for the country's National Data Center and government digitization plan. The decision was made after a meeting between senior officials from both countries.

The National Data Center aims to support the digitization of administrative services in Cambodia. The grant will be used for the necessary equipment and construction of the Center, which began in July of this year in Phnom Penh.

The Center is expected to be operational by 2025 and is estimated to cost a total of US\$30 million. In January 2022, Cambodia announced its Cambodia Digital Government Policy 2022-2035. This program aims to fully digitize government operations by 2035. At the time of the announcement, the lack of a national data center for data storage and computing resources was identified as a weakness.

Additionally, ministries and institutions in Cambodia have limited infrastructure and technical capacity to ensure digital security. Cambodia currently has a small data center market. In May 2023, ByteDC launched a 3MW facility in the capital city, Phnom Penh. The agreement with Japan also supports the development and improvement of the public telecommunications network in Cambodia.

— 2024 —

The Future of Connectivity: Enabling the Internet of Things

Telecom Review has been gathering top-tier industry leaders and experts in virtual panels to discuss the most trending topics in the ICT industry. In an upcoming virtual panel, the speakers will emphasize the importance of the Internet of Things and how it fits in the future of connectivity.

Place: Virtual



12 pm Riyadh time

23

JANUARY

Capacity Middle East

Capacity Middle East stands out as the premier gathering for digital infrastructure in the region, bringing together influential ICT stakeholders from the Middle East and beyond.

Place: Grand Hyatt Dubai, UAE

capacity
MIDDLE EAST 2024

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FEBRUARY

MWC Barcelona

Join the mobile technology ecosystem at the largest and most influential connectivity event; where global companies, international governments and tech businesses converge.

Place: Fira Gran Via, Barcelona, Spain

MWC
GSMA

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FEBRUARY

Latest updates on: www.telecomreview.com

— 2024 —

LEAP

LEAP is a global tech event that brings together leading technology companies and industry experts to discover new ideas, build new partnerships, and connect with inspiring mentors and investors.

Place: Riyadh Exhibition and Convention Center, Malham, Saudi Arabia



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MARCH

GISEC

GISEC Global provides vendors and companies from around the world with access to lucrative opportunities in cybersecurity, one of the world's booming markets.

Place: Dubai World Trade Center, UAE



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APRIL

CABSAT

The premier gathering for professionals in the content, broadcast, satellite, media, and entertainment industries in the Middle East & Africa, seeking to harness cutting-edge technology and innovation in shaping the next generation of content.

Place: Dubai World Trade Center, UAE



23
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