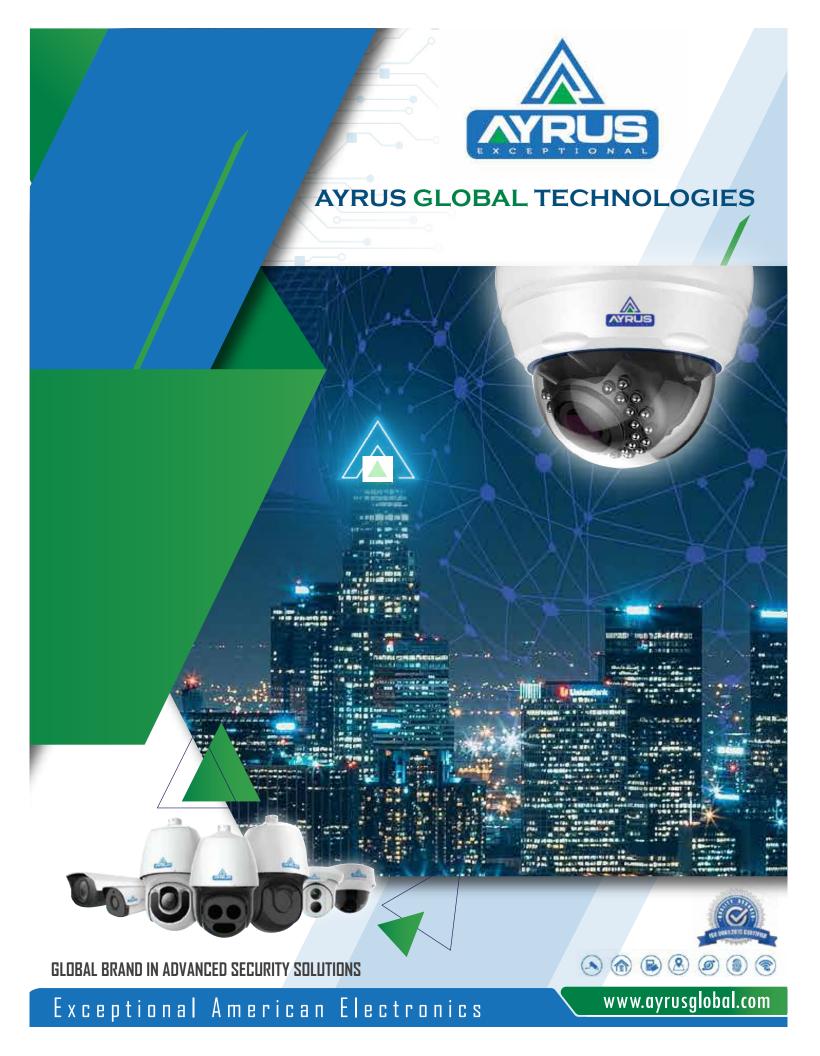


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Editor's Note



Dear Readers,

As we step into a promising new year, it is with great enthusiasm that we present the latest edition of our magazine, the January 2025 Issue of Teletimes International. In this issue, we bring you an array of insightful interviews, in-depth articles, and updates from key players in the industry. From groundbreaking advancements in 5G technology to the transformative role of Al, edge computing, and sustainability in shaping the future, we delve into the trends that will define 2025 and beyond.

Our cover feature, an interview with Thibaut Faivre of Airbus, highlights the seamless integration of terrestrial and satellite communication technologies. We also explore the vibrant evolution of ICT talent in the region, with Huawei's ICT Competition showcasing the brilliance of future innovators.

This month, we celebrate not only technological achievements but also the vision and collaboration driving these advancements. As always, our mission is to bring you the stories and insights that inspire innovation and foster a deeper understanding of our everconnected world.

We are proud to continue as your trusted source for news, trends, and thought leadership in the ICT space. Your support has been instrumental in our 20-year journey, and we look forward to many more years of exploring the frontiers of technology together.

Wishing you a year of innovation and success!

Khalid Athar Chief Editor



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e& UAE has successfully completed the world's first 2.4Tbps per wavelength lab trial, in collaboration with Huawei. This trial marks a significant step forward in advancing the UAE's optical infrastructure readiness, setting the foundation for accelerating the nation's Al strategy.

Sultan Rashid Abdalla Ali Aboud Al Nagbi, Vice President, Transport Infrastructure Development, e& UAE, said: "We are proud to be the first to test the 2.4Tbps optical solution globally. This trial demonstrates e& UAE's dedication to exploring next-generation technologies. The 2.4Tbps solution is set to revolutionise Al adoption by providing the foundation for an advanced, future-ready optical infrastructure. This milestone also

highlights continued progress in e& UAE's journey to deliver greater value to businesses, communities, and the UAE's digital economy."

Victor Zhou, President of Huawei's Optical Transmission Domain, said: "We are delighted to partner with e& UAE in attaining this revolutionary milestone of the 2.4Tbps trial. We remain committed to collaborating closely to actualise a Fixed 5G-Advanced All-Optical Premium Transmission for enhanced intelligence, thereby underpinning e& UAE's 10Giga and artificial intelligence strategy."

This 2.4Tbps test marks a significant milestone in the ultra-high-speed optical industry, paving the way for intelligent 10Giga connectivity. Building on the

success of last year's 1.6Tbps trial, this 2.4Tbps solution connects data centres through high-speed, reliable, and sustainable links, enabling the rapid transmission of large volumes of data. This advancement empowers cloud-based services, AI systems, and Al-enabled applications to operate with greater efficiency, providing a robust digital infrastructure for the UAE.

e& UAE's successful 2.4Tbps trial, in collaboration with Huawei, underscores its proactive stance in advancing AI and driving data adoption. By embracing early technology innovation, e& UAE continues to strengthen its network capabilities, laying the foundation for a smarter, Alpowered future and supporting the UAE's long-term digital vision.

The Telecom Revolution: Five Trends for 2025 That Will Shape the Future

Markus Persson, Global Industry Director, Telecoms, IFS

The telecommunications industry stands at the crossroads of innovation and transformation. As technologies such as 5G, AI, and edge computing mature, their potential to reshape industries, societies, and economies is becoming more apparent. However, with these opportunities come challenges – ranging from monetization dilemmas to sustainability demands and cybersecurity complexities. In 2025 I predict five key trends will define the future of telecommunications. Harnessed correctly they will enable businesses to adapt to shifting markets and address the challenges of a connected world.

1. 5G Transforming Modern Society

The rollout of 5G has set the stage for a seismic shift in how society interacts with technology. Boasting ultra-fast speeds, low latency, and high reliability, 5G enables the next wave of innovation in sectors such as healthcare, transportation, and manufacturing. However, a challenge remains: how can telecom operators monetize this investment, particularly when consumers see little difference compared to 4G?

The answer lies in enterprise and industrial applications. Telcos will turn to Industrial AI to help unlock 5G's potential in industrial environments. For example, 5G's low latency and high capacity enable real-time data exchange, making applications such as predictive maintenance in factories or autonomous vehicle networks possible. With solutions that connect IoT devices, analyze data in real-time, and optimize workflows, telcos can harness 5G to transform their operations and achieve tangible returns on investment.

As telcos take 5G into the industrial setting,



2025 will see them turn their attention to 6G. New networks have historically been rolled out every decade. 2020 saw 5G, and 2030 is expected to be the timeframe for the widespread adoption of 6G. However, the investment in 3G and 4G networks cannot be replicated for 6G as the return will simply not be there. We expect to see 6G being a software-driven update rather than a new architecture. 6G will bring higher speeds, lower latency, and enhanced capacity, enabling telcos to integrate Al and machine learning (ML) to optimize network performance and provide seamless connectivity.

2. Rejuvenating IoT: The Power of Edge

The promise of IoT has long been heralded, but limitations in network infrastructure have hindered its full realization. Enter edge computing – a game-changer for IoT deployments. By processing data closer to the source rather than relying on distant cloud servers, edge computing reduces latency, conserves bandwidth, and ensures real-time decision-making.

Industries are already witnessing transformative applications. Smart cities use edge computing for efficient traffic management, while manufacturers employ it to monitor equipment and prevent downtime. For telecom operators, edge computing also solves historical challenges like peak usage bottlenecks, allowing networks to dynamically allocate capacity for specific events or locations.

Many of our customers are at the forefront of this evolution, particularly in the industrial IoT space. By integrating edge computing into their ecosystems, telcos ensure seamless connectivity between sensors, machinery, and analytics platforms. This capability enhances precision, automates decision-making, and minimizes downtime, providing the steppingstone to new revenue streams and making edge computing indispensable for modern enterprises.

3. Al-Powered Network Management: The **Future of Automation**

The telecom sector's embrace of AI is revolutionizing how networks are managed. With networks becoming more complex due to the integration of 5G, IoT, and edge computing, traditional management methods are no longer sufficient. Al offers a solution, automating repetitive tasks, predicting network issues before they occur, and optimizing performance. This is why Aldriven network optimization will be a critical trend for 2025.

McKinsey research highlights how AI can reduce network management costs while increasing reliability. Al-powered platforms facilitate proactive asset management

teletimes



Teletimes Interview



and dynamic resource allocation, enabling operators to analyze vast amounts of network data, predict potential outages, and ensure uninterrupted service delivery.

Moreover, Industrial AI, a subset of Al tailored for industrial processes, is increasingly pivotal. Telcos can embed Industrial AI into production workflows, automating routine tasks such as network configuration and maintenance, allocating resources based on real-time demand and enhancing customer experiences.

4. Eco-Friendly Breakthroughs and **Sustainable Energy Solutions**

As the world moves toward greener practices, sustainability has become a top priority for telecom operators. Networks being geographically spread and getting denser are set to increase the power consumption, with a significant carbon footprint generated by data centers, base stations, and other infrastructure. The industry is now exploring innovative solutions to meet energy efficiency goals.

One approach that will gain further adoption in 2025 is the use of AI and IoT to optimize energy usage. While smart meters and sensors can monitor energy consumption in real-time, AI can identify areas where energy is being wasted and

automatically adjust energy use based on demand. As telcos integrate sustainability into their operational strategies, they will begin to adopt asset management tools to track energy metrics and accelerate the implementation of more green initiatives.

Another breakthrough we will see in 2025 is the development of sustainable energy solutions, including solar-powered base stations and low-power 5G networks. These efforts not only reduce environmental impact but also help operators comply with stringent regulatory requirements, particularly in regions where operators are mandated to cover underserved or rural

Lastly, more and more CSPs are looking to reduce their carbon emissions, and a key method for accomplishing this is reducing field engineer drive time. Another strategy is incorporating Electric Vehicles into service fleets. With AI-powered scheduling optimization solutions, these companies can reduce field worker drive times by as much as 50%, meaning lower carbon footprints and fuel costs.

5. Mastering Cybersecurity: Advanced and Ethical Strategies for the Digital Age

As telcos become increasingly cloud-based, the importance of robust cybersecurity

cannot be overstated. The transition to digital, interconnected ecosystems has made networks vulnerable to sophisticated cyber threats, with critical implications for data privacy and national security.

In 2025, telecom operators will invest in Al-driven threat detection, encryption technologies, and comprehensive risk management frameworks to navigate regulatory requirements and protect sensitive data. These tools will play a crucial role in identifying and mitigating cyber threats in real-time. For example, using Al to analyze network traffic will detect anomalies and flag potential security breaches before they cause significant damage.

Furthermore, ethical AI practices are gaining prominence in cybersecurity. By ensuring transparency in AI decisionmaking and preventing algorithmic biases, telecom operators can maintain customer trust while securing their networks. Yet, a recent study by Nokia found that while 87% of operators have started to implement Al into their network operations, they are struggling with the high-quality data issue. To master data transparency, CSPs are looking to enterprise software platforms with embedded industrial AI that help them ensure that their AI systems are transparent and accountable.

A Connected, Sustainable Future

The telecommunications industry is poised for unprecedented transformation, driven by advancements in 5G, edge computing, AI, and sustainability. While challenges such as monetization, security, and environmental impact persist, innovative solutions are helping them seize new opportunities.

By aligning with these five trends, telcos can not only stay ahead of the curve but also play a pivotal role in building a more connected, efficient, and sustainable world. From advancing IoT applications to fostering the adoption of industrial AI, the future of telecommunications is as promising as it is transformative.



Teletimes: Airbus has been a major player in the public safety and security sector. What are the current market trends you're seeing in this field?

Thibaut Faivre: We are witnessing the digital transformation of critical communications. This translates into the start of the transition from narrowband to broadband technologies. In some countries, public safety organisations are already taking their nationwide critical communication solutions to the next level like France with its Réseau Radio du Futur (RRF) or Spain with the Sistema de Radiocomunicaciones Digitales de Emergencia del Estado (SIRDEE). Other organisations are choosing a slow transition strategy or hybrid configuration as these kinds of transitions are long-term projects which require a lot of investments and change management. In any case, broadband and narrowband technologies are not opposite, we can get the best from both worlds. There are many connections between these two areas with more and more use cases that didn't exist a few years back.

TT: The importance of public safety technologies has grown rapidly, especially in today's complex security landscape. How is Airbus positioning itself to meet the increasing demand for

"There is a clear continuum between terrestrial secured communication networks and satellite

> Thibaut Faivre, Head of Sales and Program Delivery for the Middle East, Africa, and India at Airbus Public Safety and Security

advanced security solutions?

TF: In addition to growing geopolitical and environmental tensions, public safety forces unfortunately have more and more disasters and crises to handle. Critical communications are the backbone of their missions. Public safety forces not only need to communicate by voice, but they also need to share numerous data, such as pictures, videos and locations, and to be connected to external systems via APIs, to carry out their missions effectively. They also require resilient and reliable connectivity as well as coverage to remain connected at any time. This is what we deliver with our Mission-Critical Push-to-Talk over Broadband (MCX) capabilities. What's more, we rely on long-term partnerships with several regional partners, for accessories and devices for instance, and Mobile Network Operators (MNOs) to offer end to end communication and collaboration solutions and meet as many use cases as needed.

TT: What are some of the key challenges that the public safety sector is facing in the Middle East region, and how does Airbus Public Safety and Security help governments and organizations address them?

TF: The Middle East is a unique region where several elements need to be taken into account: firstly, a very specific geopolitical environment with high security challenges. Secondly, a booming economy including a sizable increase of the population and the multiplication of large international events to host, echoing very ambitious visions e.g. Dubai 2040 or KSA Vision 2030 for example. Finally, a strong need for high technology to be developed locally with the regional ecosystem of start-ups, government owned companies and universities. In this context, for 30 years, Airbus has

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The Middle East is a unique region where several elements need to be taken into account: firstly, a very specific geopolitical environment with high security challenges. Secondly, a booming economy including a sizable increase of the population and the multiplication of large international events to host



been locally developing, implementing and maintaining critical communication networks and systems with regional partners. Their operational deployments as part of large events such as the Hajj (2.5m pilgrims per day), Dubai Expo 2020 (25m visitors) or FIFA World Cup Qatar 2022 (20m attendees), are part of the best examples of these collaborations.

TT: The transition from narrowband to broadband communications is a significant change. What are the most impactful benefits of this transition for public safety agencies?

TF: Transitioning from narrowband to broadband technologies definitely helps public safety organisations increase the efficiency and safety of their operations, in all areas and all situations, through critical communications. Allowing all public safety forces to go beyond voice with multiple new data to share during their missions, broadband technologies are truly multimedia. Agnet, Airbus' communication and collaboration solution, offers flexibility, reliability, as well as cost and service delivery efficiency, as it is compliant with 3GPP standards on the one hand, and network and device agnostic on the other hand. This transition being indeed a significant change, public safety organisations can also consider a hybrid integration of Agnet into their current Professional Mobile Radio (PMR) systems.

TT: Can you explain how satellite networks, particularly Agnet over Satcom, can provide continuity when terrestrial networks

TF: Agnet over Satcom consists in the use of deployable networks



and LEO satellite communications for connectivity, in addition to the broadband technology of Agnet. This ensures fully resilient coverage and capacity everywhere, whether it's in remote, rural, or coastal areas where commercial networks may be unavailable, and in scenarios such as wildfires, extreme cold weather, major road accidents, cyber-attacks, or during international summits. With this dual approach, organisations can fully embrace the enhanced capabilities of 4G/5G networks while having the flexibility to enable satellite connectivity for their critical communications. What's more, satellite connectivity can be established on a temporary basis or permanently and the setup is very fast, that is to say a few minutes rather than hours.

TT: How is Airbus Agnet Turnaround improving collaboration



Transitioning from narrowband to broadband technologies definitely helps public safety organisations increase the efficiency and safety of their operations, in all areas and all situations, through critical communications





Cities like Dubai or Riyadh are indeed becoming references in terms of digitization and smart cities, with ICT and IoT systems being interconnected and providing security forces with full views of situations that require their attention



among ground staff, and how does this lead to more efficient operations?

TF: At airports, operations must be seamless, secure, and functioning in real-time. One key factor is the efficient and fast communication between the airport, ground teams, control centers, and airlines. As disruptions in that communication process result in delays, poor passenger experiences, and additional costs, airports and other stakeholders risk operational, reputational, and financial damages. Agnet Turnaround is one way to avoid all of that as it perfectly fits the most common communication challenges at airports such as communication between different teams, security of the communication channels, lack of live information or user experience. Agnet Turnaround can solve all these challenges as it invites all teams on the same communication platform, allowing different groups to connect instantly with the right stakeholder. It also meets the highest level of security requirements that prevent compromised devices and unauthorized users from accessing the airport's resources. In addition to that, Agnet Turnaround offers automatic group creation based on the flight number for the turnaround. This automated feature enables live monitoring, facilitates easy tracking of relevant tasks, and ensures that information always reaches the correct person right away.

TT: As cities become 'smarter,' how does Airbus's portfolio of public safety and security solutions fit into the smart city concept?

TF: Cities like Dubai or Riyadh are indeed becoming references in terms of digitization and smart cities, with ICT and IoT systems being interconnected and providing security forces with full views of situations that require their attention. On our end, we are able to integrate numerous sensors and autonomous systems to Agnet. For instance, we have successfully integrated smart sensors -

specifically gas detectors - to Agnet for a critical industry customer, thus enlarging the operational uses of Agnet. Through Software Development Kits (SDKs), we are enriching Agnet every day, allowing our customers and partners to develop their own modules.

TT: Critical infrastructure protection has become a top priority for governments worldwide. What specific solutions does Airbus offer to help protect these vital assets?

TF: All our solutions are adapted to both mission- and businesscritical specific needs. Mission-critical communication solutions cover police officers and emergency services' missions for instance, while business-critical products target security employees in key industries like oil and gas, energy or aviation. As we understand all these needs, we meet them by designing the most suitable solution to help carry out missions effectively and ultimately connect those who protect vital assets like critical infrastructure. We are committed to enhance them and ensure governments are properly equipped to face current challenges. Both our TETRA networks and Agnet platforms are today used as part of daily operations at several critical infrastructures within the whole Middle East region.



TT: How do you see the future of critical communications and satellite services in your market?

TF: There is a clear continuum between terrestrial secured communication networks, whether it's TETRA or LTE, and satellite communication services. Pioneering space for the last 40 years, Airbus is the go-to partner for governments and critical industries to leverage this continuum and deploy the adapted solutions accordingly. With the growth of LEO satellite services disrupting the market, we see more and more use cases requesting both technologies to be integrated through an end-to-end approach via our Agnet platform. Plus, we can rely on OneWeb - a constellation of low Earth orbit satellites - which has global coverage thus aiming at connectivity everywhere.



2025 Tech Predictions from Cloudflare

John Engates, Field CTO, Cloudflare

- 1. The AI revolution will hinge on edge computing. To unlock Al's true potential, edge computing must bring the compute power closer to where it's actually needed. Edge computing represents a paradigm shift, dramatically reducing latency and enabling a new generation of sophisticated, responsive applications. Imagine autonomous vehicles making split-second decisions, interactive gaming with zero perceptible delay, and realtime video processing that responds instantaneously. These innovations become possible when compute resources are strategically positioned near their point of use. That's why the future of AI is not just about raw computational power, but about smart, distributed computing that brings intelligence closer to where it's most impactful.
- 2. Al is the double-edged sword of cybersecurity. On the one hand, it powers advanced threat detection, anomaly detection, and automated response systems, enabling defenders to stay ahead of emerging threats. On the other, it is being weaponized by attackers to create more sophisticated and adaptive exploits. We are entering an era where Al systems will battle Al systems, with human security teams orchestrating strategies to maintain the upper hand. This shift underscores the need for continuous innovation in Aldriven security solutions, as static defenses become increasingly inadequate.
- 3. Zero Trust exits its buzzword era to become a fundamental security necessity. Imagine a security system that treats every digital interaction as potentially suspicious, requiring continuous verification much like a hyper-vigilant airport security checkpoint that doesn't just check your ID at the entrance, but monitors your every move. Zero Trust operates on a simple yet powerful principle: trust nothing by default, verify everything constantly. This





methodology has become even more essential as traditional network boundaries disintegrate in our cloud-native, distributed work environments.

4. Connectivity and the ever-expanding space-based Internet will face new challenges and growing pains with machine-to-machine traffic. Connectivity itself is undergoing a profound transformation. As space-based internet services gain traction and billions of IoT devices come online, networks must now handle not only human-to-human communication but also an ever-growing flood of machine-to-machine API traffic. Meeting this challenge

calls for designing networks with security, reliability, and performance baked in from the start. These attributes become indispensable as data flows multiply and diversify, demanding an infrastructure that can gracefully scale, adapt, and maintain trust at the edges of our increasingly interconnected world.

5. Al will transform the user experience and how we interact with our favorite technologies. Imagine retail platforms that intuitively understand your preferences before you articulate them, or educational tools that dynamically adjust to your unique learning style in real time. These experiences are made possible by sophisticated AI algorithms that leverage comprehensive yet ethically-sourced data. Critical to this transformation is robust infrastructure that ensures seamless, consistent experiences across devices and locations. Emerging technologies like edge computing are key to this vision, bringing computational resources closer to users and enabling faster, more responsive interactions. The future of user experience is not just about technology—it's about creating intelligent, intuitive connections that feel almost magical in their precision and personalization.

stc Group uses AI solutions during Riyadh Season, breaking 5g usage records

stc Group has recorded a 61% 5G network usage rate during Riyadh Season in 2024, marking one of the highest utilization rates in history. Using artificial intelligence and advanced infrastructure, stc Group's 5G networks have provided record-breaking connectivity during Saudi Arabia's largest entertainment festival.

stc Group has partnered with the Kingdom's General Entertainment Authority as a Riyadh Season sponsor for the last 5 seasons, which will continue for the next three years. As the platinum sponsor of this iconic annual festival, which features entertainment, cultural events, and global attractions, stc Group is powering the experience with innovative digital solutions, driving world-class connectivity for all attendees.

Over 12 million visitors from around the world have attended Riyadh Season events this year, making the festival a unique model for the integration of entertainment and technology. To accommodate the number of international roaming customers in the Kingdom, which increased by 49% since 2023, stc Group expanded its network by over 12% across Boulevard City where Riyadh Season is hosted. This network expansion involved increasing 5G frequencies by 20%, providing more than 655 WiFi hotspots and boosting internal network integration by more than 10% from last year.

In order to maintain this extensive network, stc Group established 6 digital management solutions sites, which allow real-time responses to any network errors. As a result, Riyadh Boulevard has measured a 5G usage rate of 61%, breaking records as one of the highest 5G usage rates in the world. By harnessing Massive Multiple-Input Multiple-Output (MIMO) antennas, which is a type of wireless telecommunications technology equipped for large antenna elements that





improve energy efficiency, and AI-powered real-time analytics, stc Group optimized its system performance. This allowed visitors at Riyadh Season to document their moments and communicate with family, whether in the Kingdom and internationally, with reliable connectivity and speed.

The use of modern VoLTE voice services increased to 86% this year, as stc Group invested in the infrastructure to develop one of the most important services contributing

to providing high-quality entertainment and tourism experiences, reaffirming stc Group's leadership in telecommunications.

With stc Group's world-class connectivity speeds and advanced digital services operating in highly efficient and integrated operating systems, stc Group has continued to support the success and expansion of Riyadh Season year over year, driving Riyadh's status as a capital of major events, entertainment, and tourism.

12



DNS Security A Must-Have Under NIS2

Craig Sanderson, Principal, Cybersecurity Strategist at Infoblox

On 14 December 2022, the European Commission published "Directive (EU) 2022/2555 on measures for a high common level of cybersecurity across the Union," otherwise known as the NIS2 Directive. This directive is the EU's update to the Network and Information Systems Directive (NIS), aimed at strengthening cybersecurity across the EU by setting higher standards for security in essential and important sectors. The NIS2 Directive focuses on enhancing the resilience of critical infrastructure and improving the ability of EU member states to respond to cybersecurity incidents. It has a broad reach and significant impact on both EU and non-EU entities, applying to a wider range of sectors, including digital infrastructure, healthcare, energy, transportation, and critical public services. Additionally, it expands coverage to include not just essential services but also medium and large entities in critical sectors, including digital services and suppliers of key technologies.

17 October 2024 then marked the deadline for EU Member State implementation of NIS2 into national law. The European Commission has adopted the NIS2 Implementing Regulation which sets out in further detail some of the technological requirements which entities subject to NIS2 are expected to comply with. The requirements of the Implementing Regulation form the baseline of compliance across the EU, and we expect them to be supplemented with further technical details and guidance in the coming months.

Of particular relevance to legal, compliance and cybersecurity practitioners working for entities subject to NIS2, are the requirements of the Implementing Regulation on DNS security. Article 6(7) of the Implementing

Regulation requires that "the relevant entities shall . . . apply best practices for the security of the DNS".

The European Union Agency for Cybersecurity (ENISA) will help define what constitutes "best practice for the security of the DNS" and we look forward to collaborating with them in that endeavor.

Infoblox has been providing DNS and DNS security solutions for over 25 years and has performed countless numbers of DNS health and security assessments in organizations across the globe. Based on our experience we expect the best practices to focus on three key areas:

- Securing the DNS Platform
- •Securing the DNS Protocol and
- •Implementing DNS as a Cybersecurity Control

Securing the DNS Platform

Cybersecurity regulations are increasingly focused on operational risk and digital resiliency. This includes the resiliency and availability of critical infrastructure. DNS is a foundational networking service which users and applications rely on. Any loss of service due to denial-of-service attacks or even misconfiguration can have devastating consequences. It is expected that NIS2, like other regulations, will focus heavily on ensuring that regulated entities have a robust and resilient DNS architecture that is accounted for in business continuity plans and processes.

In Infoblox's experience, many organizations have not proactively assessed the robustness of their DNS deployments, leaving them exposed to



significant operational and cybersecurity risk. Regulated entities are likely to need to undertake a DNS architecture assessment to address risks such as insufficient patch management or architecture resiliency before instituting processes to proactively maintain the DNS infrastructure.

Securing the DNS protocol

As highlighted by the U.S. Cybersecurity and Infrastructure Security Agency (CISA), DNS is widely abused by threat actors to facilitate a broad range of attacks ranging from ransomware to phishing. Implementing DNS without appropriate security protections has been proven to be an effective means to exfiltrate data out of networks, as most cybersecurity infrastructure allows DNS traffic to facilitate web browsing.

Similarly, threat actors know that to execute phishing campaigns to target an organizations' employees or even their consumers, using "lookalike" domains that impersonate the brand leads to a far greater success rate. As a result, organizations who have failed to secure their public facing domains or register those that users expect they own can lead to devastating consequences. Infoblox research suggests that all sizes of organizations are being targeted with

Infoblox detecting 25,000 new lookalike domains every week.

Given the prevalence of threat actor abuse of the DNS protocol and domains it is widely expected that NIS 2 and other regulations will drive regulated entities to formalize a strategy and process to secure their external facing, authoritative domains.

Implementing DNS as a Cybersecurity Control

According to U.S. cybersecurity official

Anne Neuberger, "using secure DNS would reduce the ability for 92% of malware attacks ... from a commandand-control perspective, deploying malware on a given network." Given that DNS platforms have, in effect, a front row seat to what malware is operating on a network it seems logical to integrate DNS into any cybersecurity defense strategy.

Protective DNS refers to a DNS service that intercepts requests from clients to resolve malicious DNS domains. By using threat intelligence optimized for DNS platforms, it provides a highly scalable and pervasive security control that is simple to deploy and based on the industry-recognized DNS standard.

The UK National Cybersecurity Center service much like the US government version operated by CISA PDNS, has become a core pillar in government cybersecurity strategy. With the DNS4EU initiative in the European Union, the use of Protective DNS has become an accepted DNS best practice which is already adopted by not only governments but also public and private sector organizations.

2025 IT Security Predictions from Cloudflare

Grant Bourzikas. CSO. Cloudflare

1. Vendor lock-in is a crutch that will lead to increasing breaches in 2025 organizations must start their security transformation journeys. The deeply rooted foothold that vendors have in organizations' environments has become one of the main drivers of complexity. The bottom line is that complexity creates chaos, and chaos distracts from the real priorities when it comes to securing an organization. Being held hostage by a vendor, to a point where moving off of them seems impossible, is the moment they begin to help shift the balance of power back in favour of threat actors. The hyper-focus on "digital transformation" over the past few years – implementing a myriad of new tools and vendors across the organization to rapidly innovate – has left security in the dark. In 2025, we will feel the full weight of having fallen victim to the cycle: shiny new tools, Wall Street's buy-in, rush to implement, repeat. We must now shift focus to "security transformation," and begin to remove the tools and vendors that are causing complexity vs. furthering innovation.

2. In 2025, disinformation will transcend the Internet and social media, and move to poison and taint AI models.



Information sharing exists at an order of magnitude faster, and more efficient than ever before. And in the world of AI, data is the only currency and organizations that have the most will win - but quantity doesn't always equal quality. Al on its own will not solve the world's most critical problems. The successful implementation and use of AI depends on data. But as disinformation continues to plague society, it will begin to trickle into AI models that are critical to making decisions – e.g., calculating goods needed to restock grocery store shelves, diagnosing sick patients or analyzing market trends to share financial risks with

3. Broad brush cyber regulations

legislated with good intent will have a reverse effect in 2025 - creating complexity and having no real impact on stopping attacks. In the past few years we have witnessed a cadence of record shattering, significant breaches that have drawn the eye of regulators. But while their attempts to raise the security resiliency of organizations are aimed to be helpful, they are often knee jerk reactions that require unrealistic efforts. This is a complete misstep, with much of today's regulatory efforts ineffective and not focused on the most critical aspects of security controls. Regulators still fail to recognize what will make the biggest difference in moving the needle towards immutable infrastructure.

4. In 5-10 years there will only be two types of companies: Those that leveraged AI to innovate, and those that no longer exist. With this harsh reality, CISOs must figure out how to be an enabler of AI, not a blocker. But with AI still in its infancy, very few have a strong understanding of the technology or the risks it may present... leading to extremely low levels of confidence that their organization is well-prepared. The lack of understanding around AI, is ultimately giving threat actors a leg up. •

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Digitalization in the Middle East & Africa -Shaping a collaborative future in 2025 and beyond!

Patrick Johansson, President of Ericsson Middle East and Africa

Imagine a farmer boosting crop yields using 5G-enabled weather insights, a student in rural villages accessing global education through digital platforms, or a logistics firm slashing delivery times with IoT-powered solutions. These are not visions—they are realities powered by Ericsson's cutting-edge technology and long-standing partnerships with our customers the communication service providers across the Middle East and Africa (MEA). As we approach 2025, the MEA region is not just embracing the digital revolution but actively leading its evolution.

With 310 million 5G connections expected by 2029 and over 1.2 billion mobile subscriptions, MEA is poised for transformative growth. At Ericsson, we are proud to be at the forefront, empowering communities, supporting telecom operators, and driving enterprise innovation to create a connected, inclusive, and sustainable future. In a rapidly digitalizing world, enterprises across MEA are leveraging Ericsson's technologies to innovate and thrive.

As a few examples, in Saudi Arabia, Ericsson's partnerships are building the next generation of networks, supporting digital transformation initiatives in line with Saudi Arabia's Vision 2030 aspirations. In 2024, we partnered with leading telecom operators in the multiple countries in the region to implement 5G Advanced time-critical communication solutions, enhancing user experience and driving the adoption of next-generation applications like cloud gaming and extended reality.

Our technology is powering logistics solutions and reducing delivery times by 30%, while private 5G networks are enabling manufacturers to automate



operations and adopt Industry 4.0 practices. Ericsson's Private 5G networks in South Africa are driving efficiency and safety in the mining sector by automating operations and enabling remote monitoring. These innovations are helping enterprises across the region unlock efficiency, enhance customer experiences, and contribute to national economic

Ericsson's technologies are enabling telecom operators to lead in connectivity, unlock new revenue streams, and deliver superior services. In the GCC Countries and by 2030, 93% of mobile subscriptions in GCC nations are expected to be 5G. Ericsson's dual-band radios and Al-driven network solutions are helping operators deliver faster speeds, seamless coverage, and lower latency.

Last year, Ericsson have modernized core networks in Egypt, enabling operators to launch the country's first 5G standalone services and introducing innovative consumer and enterprise applications. While in Nigeria, the Al-driven analytics have reduced network outages by 25%, improving service reliability and customer satisfaction for millions.

By partnering with telecom operators around efficient, scalable, and sustainable solutions, Ericsson's technology secure sustainable success in a competitive market while meeting the rising demand for advanced connectivity.

Ericsson's impact is evident across MEA. As one example, in Qatar, Ericssonpowered 5G stadiums have redefined fan experiences, showcasing immersive entertainment and operational efficiency during global sports events. While in Kenya, our Fixed Wireless Access solutions have brought high-speed internet to remote villages, enabling education, telemedicine, and small business growth. By tailoring solutions to local needs, Ericsson is fostering innovation, inclusivity, and sustainable development across the region.

5G, AI and the Cloud are the building blocks of MEA's digital future, and Ericsson is leading the charge in their deployment. In Nigeria, our Al-powered network optimization ensures reliable connectivity, enhancing user experiences and enabling businesses to operate seamlessly.

Technology is not only enabling a prosperous future but a sustainable one as well. Sustainability is at the heart of Ericsson's innovations, helping reduce environmental impact while expanding connectivity. In Morocco, Ericsson's initiatives in smart city infrastructure and telecom sustainability, as part of their vision for 5G and smart cities in the Middle East and Africa. And in the GCC Region, Ericsson's energy-efficient 5G networks are reducing power consumption by up to 30%, supporting national climate goals.

But what would it mean for every enterprise in MEA to harness the



full potential of connectivity? How can advanced and emerging nations collaborate to ensure digital inclusion for

The answers lie in collective action. By 2030, mobile broadband will account for 70% of subscriptions, and 5G will

revolutionize sectors such as education, healthcare, and finance. Ericsson is committed to being a driving force behind this transformation.

At Ericsson, we see technology as a bridge to opportunity, inclusion, and progress. Together with our customers and industry

partners, we are shaping a future where connectivity empowers nations, uplifts communities, and drives sustainable development. Through groundbreaking innovations, impactful partnerships, and a commitment to sustainability, Ericsson is unlocking the potential of the Middle East and Africa, to lead in a connected world.

Ericsson announces new Customer Unit Saudi Arabia under leadership of Håkan Cervell

Ericsson has announced a new organizational structure for its operations in the Middle East and Africa (MEA) region. As part of this transformation, the Saudi Arabia market will be served under a newly established Customer Unit (CU), led by Håkan Cervell, Vice President and Head of CU Saudi Arabia.

This move is part of Ericsson's strategic ambition to simplify its organizational setup, enhance customer responsiveness, and strengthen local market accountability. The newly created CU Saudi Arabia, which will serve all customers in the country, is one of five Customer Units established under the new structure. The broader reorganization aims to optimize resources, accelerate timeto-market, and empower decision-making



at the country level.

With over 30 years of experience in the Information Communication Technology (ICT) industry, Håkan Cervell brings proven leadership, business development expertise, and a deep understanding of the region.

Since 2022, Håkan has served as the Head of Customer Unit stc, Saudi Arabia and Egypt, where he played a pivotal role in fostering strong partnerships and advancing digital transformation initiatives.

The establishment of CU Saudi Arabia is part of Ericsson's larger regional transformation, which includes five Customer Units: CU Saudi Arabia, CU Gulf, CU West & Southern Africa, CU Central & Eastern Africa, and CU MEA North. Each unit is designed to address local market needs with increased accountability and customer focus.

Ericsson remains committed to accelerating digital transformation and supporting Saudi Arabia's journey toward becoming a global leader in connectivity and innovation.





The year 2024 marked a transformative phase for Ooredoo Kuwait, under the visionary leadership of CEO Abdulaziz Al-Babtain. The company achieved remarkable successes, solidifying its position as a pioneer in telecommunications and digital solutions. These achievements were driven by a bold strategic vision that prioritized technological innovation and investment in artificial intelligence as key pillars for redefining excellence in the sector.

Throughout the year, Ooredoo Kuwait cemented its reputation as a leading provider of integrated communication services and advanced digital solutions. Aligning with Kuwait's Vision 2035, the company continued its sustainable growth trajectory, emerging as a vital enabler of the country's digital transformation journey.

Key Milestones of 2024

1. Customer Growth

Ooredoo surpassed 2.9 million customers by September, a milestone reflecting the growing trust in its innovative services and



Abdulaziz Al-Babtain CEO of Ooredoo Kuwait

tailored solutions.

2. Digital Service Expansion

The company launched several cutting-edge solutions, enhancing user experiences and delivering greater value to customers.

3. Advancing 5G Technologies

Ooredoo continued to lead in 5G advancements, focusing on next-generation network deployment to boost connectivity and support Kuwait's digital evolution.

4. Customer-Centric Innovations

Initiatives aimed at improving satisfaction and redefining service standards underscored the company's dedication to exceeding customer expectations.

Abdulaziz Al-Babtain, CEO of Ooredoo Kuwait, stated: "Innovation and continuous development are the cornerstones of our strategy," said Abdulaziz Al-Babtain, CEO of Ooredoo Kuwait. "Our 2024 achievements are the result of a relentless commitment to quality, innovation, and customer satisfaction. We're paving the way for a future where technology and human capital work in harmony to drive excellence."

He added: "Our exceptional team, combined with a bold strategic vision, has positioned Ooredoo as a leader in the rapidly evolving telecommunications

Transforming Digital and Technological Infrastructure

Ooredoo invested heavily in enhancing its digital and technological infrastructure, positioning itself at the forefront of innovation. Key advancements included:

- Deployment of 5.5G mmWave technology, enabling faster and more reliable connectivity.
- Introduction of NB-IoT solutions for smart industrial applications.
- Adoption of solar-powered base stations, reinforcing sustainability efforts.
- Achieving PCI DSS 4.0 certification, setting new standards for cybersecurity and data protection.

Enriching Customer Experiences

Ooredoo focused on delivering seamless services that align with customer lifestyles. Upgrades to its mobile app and enhanced multi-channel support enabled faster complaint resolution and streamlined service management, ensuring an unmatched user experience.

Pioneering Technological Advancements

The year saw groundbreaking achievements in technology, including:

- 5.5G Technology: Successful trials of next-gen networks offering enhanced speed, reliability, and capacity.
- Data Protection Standards: Recognition for cybersecurity excellence with the PCI DSS 4.0 certification.

Strategic Partnerships Driving Progress:

Ooredoo established impactful collaborations, such as:

• OTT Entertainment Platform '51': Developed in partnership with the Ministry



of Media.

• Aura Mobile Launch: A groundbreaking service in collaboration with Alshaya Group, combining connectivity with exclusive retail rewards.

Empowering Human Capital

Ooredoo prioritized talent development through initiatives like:

- Increasing leadership roles held by Kuwaitis to 95%.
- Offering flexible work environments.
- Launching training programs for professional growth.
- Promoting gender equality and inclusivity.

These efforts established Ooredoo Kuwait as an employer of choice, particularly among young professionals.

Sustainability Efforts

Ooredoo showcased its environmental commitment by implementing solarpowered hybrid solutions across 26 sites and optimizing energy use in data centers. This aligns with global sustainability goals and reflects the company's dedication to

reducing its carbon footprint.

Recognition and Awards

Ooredoo's dedication to innovation and excellence was recognized through multiple prestigious awards:

- CSAT Ranking: Kuwait's top telecom provider.
- Stevie Awards: Two Golds, Two Silver, and one Bronze for technology innovation.
- Honors at the SAMENA Awards for leadership in digital transformation.
- Two awards at the Asian Telecom Awards for Kuwait Mobile Operator of the Year and telecom company of the year
- The Media Creativity Award for innovative outreach.
- Award for Best in Customer Experience IDC Future Enterprise EMEA Awards

Looking Ahead

As Ooredoo Kuwait reflects on a transformative 2024, it remains steadfast in its mission to drive technological advancements, elevate customer experiences, and shape Kuwait's digital



Regional ICT talent recognized at Huawei ICT Competition ME&CA 2024-2025 in Riyadh

Huawei launches "T.H.E. GOLD Talent" program in the Middle East and Central Asia to deepen the cultivation of AI talent



Huawei concluded its 2024-2025 Middle East and Central Asia (ME&CA) ICT Competition with a glittering Regional Finals Awards Ceremony in Riyadh, coinciding the 10th anniversary of Huawei ICT Academy in the ME&CA. The event recognized exceptional performance across Cloud, Network, Computing tracks and innovation competiton, celebrating the achievements of students and instructors from leading regional institutions.

The event was attended by a distinguished gathering, including Ibrahem AlNasser, Deputy Minister for Future Jobs and Capabilities at the Ministry of Communication and Information Technology; His Excellency Chang Hua, Chinese Ambassador to Saudi Arabia; His Excellency Dr. Adel

Al-Zunaidi, Deputy Governor of the Technical and Vocational Training Corporation (TVTC); His Excellency Zhan Tao, Director of UNESCO IITE; His Excellency Sherzod Shermatov, Minister of Digital Technologies of the Republic of Uzbekistan; and Dr. Suliman Almazroua, CEO of the National Industrial Development and Logistics Program.

This year, a team of students from Jordan won the grand prize for the network track, while two student teams from Lebanon secured the grand prize in the Cloud and Computing Tracks. In the Innovation Competition, a team from Qatar emerged victorious, claiming the Grand Prize for their project 'Be My Sense.' The first prize category was shared among several teams: a Saudi team for their project 'NABEEH,'

an Uzbekistan team for 'Volta,' and a Pakistani team for 'PRISM.' Second prizes were awarded to a Kazakhstani team for 'Plantos,' a Jordanian team for '3asheqHuawei', an Iraqi team for 'EcoGuardians,' and another Saudi team for 'CS₂R'. In addition to these accolades, the team behind 'NABEEH' from Saudi Arabia received special recognition, winning the 'Most Popular Team' award after securing the most votes from

Muhammad Zubair, Consultant at the Al-Khawarizmi Institute of Computer Science, was awarded the inaugural Grand Prize for Instructors, a new category introduced this year at the Huawei ICT Competition finals.

Zhan Tao, Director of the UNESCO



Institute for Information Technologies in Education (IITE), said: "The Middle East and Central Asia has a passion for leading innovation and great potential for future development. The Huawei ICT Academy and ICT competition have become a regional flagship, a collaborative network, and an innovative engine for cultivating young digital talents. UNESCO IITE is proud of its collaboration with Huawei and other partners from the region. We wish to continue and further extend the current collaboration to engage more young talents and more partners from the Middle East and Central Asia in our shared mission and goal of achieving quality education and a successful world with peace and prosperity."

His Excellency Dr. Adel Al-Zunaidi, Deputy Governor of the Technical and Vocational Training Corporation (TVTC), and a strategic partner of the competition, said: 'I congratulate the Saudi students and all the winning teams in the regional competition finals. I hope they succeed in achieving advanced positions in the global finals for which they have qualified. We at TVTC value our partnerships with the private sector to train and qualify talents for the digital age. We aim to empower young people through initiatives like the Huawei ICT

Competition, fostering their leadership in the digital world and driving the realization of Saudi Vision 2030."

H.E. Sherzod Shermatov, Minister of Ministry of Digital Technologies of the Republic of Uzbekistan, said: "Digital talents are the driving force behind the digital economy, uniting countries and regions in a shared vision of building an intelligent world. Today, we celebrate the invaluable contributions of governments, the private sector, academia, and international organizations through the Huawei ICT Academy program. This initiative opens new doors of opportunity for young ICT visionaries, equipping them with valuable practical experience. We are committed to deepening these fruitful collaborations to ensure a brighter digital future for the next generation."

Steven Yi, President of Huawei Middle East & Central Asia, reflected on the competition's impact and said: "ICT talents are the lifeblood of digital transformation. We gathered at this prestigious awarding ceremony to invest in our young people, who are an investment in our lives and future. We should target skilled digital talents who can solve complex industrial problems using Intelligent technologies. Through

initiatives like the ICT Competition, we continue to support the development of digital talent who will drive innovation in their respective nations."

Steven Yi also revealed that Huawei will officially launch "T.H.E. Gold Talent" program in 2025. This program is an evolution of the current talent cultivation program to meet the requirements of the AI Era. It aims to focus on introducing more advanced courses on AI to solve complex industrial scenarios related to Middle East and Central Asia Region. It also focuses on utilizing advanced technologies like 5G-A, cloud, and Albased ICT education, smart classrooms in transforming higher education, and helping universities cultivate more competitive all-around digital intelligence talent. The program also targets more proactive collaboration and offers parallel HR programs to unleash the talent's value through jobs and interns.

During the event, in celebration of the 10th anniversary of the ICT Academy, a series of awards were presented to partners, instructors, and students. King Saud University, the University of Bahrain, Bahrain Polytechnic, and Al-Khawarizmi Institute of Science & Technology, received the 'Best Partner



Award' among others recognized and appreciated for their continuous efforts and innovations in driving digital transformation.

The competition's success reflects its growing significance in the regional technology education landscape. This year's Hauwei ICT Competition has seen unprecedented participation, with over 31,000 student registrations from 640 regional universities and colleges in 19 countries. The competition featured 290 participants in the Innovation Track and 30,900 participants in Practice Competitions, competing across multiple tracks, including Cloud, Network, and Computing. Participants underwent comprehensive assessment through written exams and hands-on lab work, while the innovation track featured both online and onsite defense rounds. It has also garnered support and endorsement from UNESCO, along with over 40 regional ministries, operators, and industry partners.

This milestone event builds upon Huawei's decade-long commitment to ICT talent development in the region. Through partnerships with 106 ICT academies managed by six ICT Academy Support Centers (IASCs), the program has trained over 300,000 students and certified over 35,000 professionals. This extensive network of 2,000+ qualified instructors continue to play a vital role in developing the digital workforce needed to support the region's technological advancement.

The full list of winners for the Network, Cloud, and Computing tracks are listed below. The regional finalists will now participate in the global finals of the Huawei ICT Competition, which will take place in May 2025 in Shenzhen, China.

Grand Prize

Network Track

• Jordan – Mohammad Mo'tasem Ahmed Abu Saa', Lubna Omran Mohammad Issa,

and Luma Hassan (Arabi Moh'd) Haswah, Al Balqa Applied University,

Cloud Track

• Lebanon - Mariam Zaiter, American University of Science and Technology; Roudy Maroun, Holy Spirit University of Kaslik; and Raed Diab, American University of Science and Technology

Computing Track

• Lebanon – Ahmad Chehab el Dine and Wassef Hijazi, Beirut Arab University; and Michelle Haddad, Holy Spirit University

First Prize

Network Track

• Kazakhstan – Abduganiyev Damir, Almaty University of Power Engineering and Telecommunications; and Kalashnikova Viktoriya and Saginbek Iskander, Kazakh-**British Technical University**

Cloud Track

• Irag – Shko Maghded, Koya University; Rasool Lateef Abdulrahman, University of Garmian; and Rawaz Mansur, University of Human Development

Computing Track

• Kazakhstan – Shalbai Takhmina, Astana International University; Sabyrgali Amanzhan and Dauylbayev Zakir, Almaty University of Power Engineering and Telecommunications

Second Prize

Network Track

- Pakistan Navera and Tahseen Ahmed, Mehran University of Engineering & Technology; and Muhammad Ishaque, Sindh Agriculture University
- Bahrain Sara Jawad and Mohamed Alkoofi, Bahrain Polytechnic; and Sara

Jawad Aldawood, University of Bahrain

Cloud Track

- Pakistan Haider Irfan, Ghulam Ishag Khan Institute; Waleed Ahmed, National University of Science & Technology; and Muhammad Usman Malik, FAST-NU
- Kazakhstan Kuntas Zhansulu. Yessenov University; Tanatar Ruslan, Al-Farabi Kazakh National University; and Mitalipova Anida, Astana IT University

Computing Track

- Iraq Mohammed Abdalla Hassan, Abdullah Taha, and Areen Omed Hama, University of Human Development
- Pakistan Hammas Ahmed Awan and Faizan Shabbir, FAST-NU; Areeba Nazim, University of Engineering & Technology Taxila

Third Prize

Network Track

- •Saudi Arabia Lameer Mohammed T. Kurdi, University of Jeddah; Reema Mohammad A. Alharbi and Lama Sultan A. Alshehry, Princess Nourah bint Abdulrahman University
- Uzbekistan Rikhsivoev Mokhirjon and Hafizov Shukrullo, Tashkent University of Information Technologies; and Khamidov Bakhodirkhon, Inha University in Tashkent

Cloud Track

•Saudi Arabia - Ruba Saad J. Almalki, University of Jeddah; Rawabi Awad D. Albalawi, University of Tabuk; and Rand Khalid A. Albesher, King Saud University

Computing Track

•Saudi Arabia – Hayat Ghalib A Alshawish, University of Tabuk; Ali Ahmed A Alshehri, Bisha University; Yousef Abdullah R Althebaiti, Ibn Khaldoun National Secondary School -Annafal - Educational Paths II

stc Group supports Saudi International Falconry and Hunting Exhibition and King Abdulaziz Falconry Festival, honored by Prince Abdulaziz bin Saud

His Royal Highness Prince Abdulaziz bin Saud bin Naif bin Abdulaziz, Chairman of the Board of Directors of the Saudi Falcons Club, honored stc Group for its digital sponsorship of the Saudi International Falconry and Hunting Exhibition and King Abdulaziz Falconry Festival 2024. The honor was received by stc Group CEO Engineer Olayan Alwetaid among the 2024 winners of the King Abdulaziz Falconry Festival 2024.

The Saudi International Falcon and Hunting Exhibition 2024 was held at the Riyadh Exhibition and Convention Center in Malham from 3 to 12 October. Attracting more than 600,000 visitors, the exhibition accompanied the King Abdulaziz Falcon Festival held from 3 to 19 December. As the largest falconry competition in the world, the King Abdulaziz Falcon Festival welcomed 1,032 falconers and 3,322 from nine countries worldwide, including Saudi Arabia, Bahrain, Kuwait, UAE, Oman, Qatar, Syria, Italy and Ireland.

As the kingdom's leading digital enabler, stc Group supported this year's festival and exhibition with 11 vehicles to ensure visitors and participants maintained stc Group's



world-class connectivity and high-speed 5G technology, enhancing the experience for visitors, participants, and fans worldwide.

Featuring 138 rounds of intense competition, the winners were awarded prizes valued at more than SAR 36 million, marking the largest in the history of the competition prizes associated with the festival.

stc Group is proud to contribute to the kingdom's cultural festivals and events. By supporting activities across Saudi Arabia, stc Group is supporting the digital transformation in the kingdom and contributing to the objectives outlined in Vision 2030, enriching the lives of customers, communities, and businesses alike. 🗖

Ooredoo appoints Sheikh Nasser Bin Hamad Bin Nasser Al Thani as new Group Regional CEO for the Middle East

Ooredoo has appointed Sheikh Nasser Bin Hamad Bin Nasser Al Thani as Group Regional CEO for the Middle East, effective 16 December 2024.

As part of Ooredoo Group's organisational restructuring, the roles of Group Chief Corporate Affairs Officer and Deputy Group CEO have been eliminated. The new structure introduces two Group Regional CEO positions, each responsible for a specific region. Sheikh Nasser will oversee operations in Kuwait, Oman, and Iraq, while current Group Regional CEO for North Africa and Asia, Ahmad Abdulaziz Al Neama, will



continue to oversee operations in Tunisia, Algeria, Indonesia, Maldives, and Palestine.

Sheikh Nasser brings over 20 years of experience, 15 of which are within Ooredoo. Most recently, he served as the Group Chief Corporate Affairs Officer. Prior to this, Sheikh Nasser was Chief Commercial Officer at Ooredoo Qatar, where he oversaw the B2B, B₂C and the Marketing units. Previously, he was Chief Business Officer at Ooredoo Qatar, responsible for end-to-end profit and loss accountability for Ooredoo Qatar's B2B portfolio including Connectivity, ICT, Mega Projects, and the Qatar Data Centre.



Falcon 3: UAE's Technology Innovation Institute launches most powerful small AI models

The Technology Innovation Institute (TII), a leading global applied research center under Abu Dhabi's Advanced Technology Research Council (ATRC), has unveiled Falcon 3, the latest iteration of its open-source large language model (LLM) series. This groundbreaking release sets new performance standards for small LLMs and democratizes access to advanced artificial intelligence by enabling the model to operate efficiently on light infrastructures, including laptops. Falcon 3 introduces superior reasoning and enhanced fine-tuning capabilities, making it a more powerful and usable AI model.

Falcon 3 is designed to democratize access to high-performance Al, offering models that are both powerful and efficient. Trained on 14 trillion tokens – more than double its predecessor's 5.5 trillion - Falcon 3 demonstrates superior performance across various benchmarks. Notably, it ranks among the top models globally that can operate on a single GPU. Upon its release, Falcon 3 achieved the number one position on Hugging Face's global third-party LLM leaderboard, surpassing other open-source models of similar size, including Meta's Llama variants. In particular, the Falcon 3-10B model leads its category, outperforming all models under 13 billion

His Excellency Faisal Al Bannai, Secretary General of ATRC and Adviser to the UAE President for Strategic Research and Advanced Technology Affairs, said: "The transformative power of Al is undeniable. Today, we advance our contributions to the Al community, particularly the open-source sector, with the release of the Falcon 3 family of text models. This launch builds upon the foundation we established with Falcon 2, marking a significant step toward a new generation of AI models. Our ongoing commitment to ensuring these powerful tools remain accessible to everyone, everywhere, reflects our dedication to global equity and inclusive innovation."

Falcon 3 Family

The Falcon 3 series include four model sizes, Falcon3-1B, -3B, -7B and -10B. Compared to its predecessors, significant attention has been placed on seamless integration. The models are fully compatible with widely used APIs (Application Programming Interfaces) and libraries, considerably reducing integration efforts and ensuring ease of use. This ultimately enables users to select a solution that best fits their needs. With Falcon 3 delivering exceptional performance in reasoning, language understanding, instruction following, code generation, and mathematical tasks, it is poised to set new standards in AI capabilities.

	Base models	MUSR	ввн	MMLU_PRO	If_eval	GPQA	MATH	Avg
TII)	Falcon3 10B	14.17	41.38	36	36.48	12.75	24.77	27.59
	Falcon3 7B	18.14	31.56	32.34	34.16	12.86	19.26	
€ Alibaba	Qwen2.57B	14.14	35.81	37.39	33.74	9.96	18.88	24.99
	Qwen27B	14.32	34.71	35.37	31.49	7.27	20.47	23.94
Google	Gemma2 9B	14.3	34.1	34.48	20.4	10.51	13.14	21.15
HISTRAL AZ	Mistral-nemo-base-2407 (12B)	6.52	29.37	27.46	16.3	5.82	5.36	15.14
Meta	Llama3.1 8B	8.98	25.29	24.95	12.7	6.15	5.14	13.87

	Instruct models	MUSR	88H	MMLU_PRO	If_eval	GPQA	MATH	Avg
TII	Falcon3 10B Instruct	13.61	44.82	38.1	78.17	10.51	25.91	35.19
	Falcon3 7B Instruct	21.17	37.92	34.3	76.12	8.05	31.87	34.91
Meta	Llama3.1 8B Instruct	8.41	29.89	30.68	78.56	2.35	19.34	28.2
	Qwen 2.5 7B Instruct	8.45	34.89	36.52	75.85	5.48	0	26.87
	Qwen2 7B Instruct	7.37	37.81	31.64	56.79	6.38	9.44	24.9
MISTRAL AL	Mistral-Nemo-Instruct-2407 (12B)	8.48	29.68	27.97	63.8	5.37	6.5	23.63
Google	Gemma2 9B It	13.77	21.62	20.48	50.1	2.68	6.72	19.23

The Falcon 3 small models each have a Base and an Instruct variation that each rank among the most powerful in the world for its size. The Base model allows general-purpose generative tasks, whereas the Instruct is a fine-tuned variant for conversational applications. Falcon 3 is available in English, French, Spanish and Portuguese. Falcon 3 models also have quantized versions that enable optimized integration into specialized architectures, being resource efficient and lightweight for rapid deployment and inference.

Dr. Najwa Aaraj, TII's CEO, said: "Our dedication to pioneering research and attracting top-tier talent has culminated in the development of Falcon 3. The result is a model that exemplifies our pursuit of scientific excellence, offering enhanced efficiency and setting new benchmarks in AI technology."

Dr. Hakim Hacid, Chief Researcher of the TII's AI and Digital Science Research Center (AIDRC), said: "AI is fast evolving, and we are glad to be an active part of this journey. Falcon 3 pushes the boundaries of small LLMs further, contributing to the open-source community by providing access to a better-performing AI. We are confident that this latest release will open an unlimited range of opportunities and will have tremendous benefits, empowering businesses and individuals to use AI in ways that were previously

TII is also introducing Falcon Playground, a testing environment for end-users, programmers, coders, and researchers to explore Falcon 3, providing an opportunity to experiment and offer feedback.

Huawei and Ras Al Khaimah Tourism Development Authority collaborate to boost tourism

Ras Al Khaimah and Huawei Ecosystem have collaborated on several campaigns and initiatives aimed at positioning Ras Al Khaimah as a must-visit destination for Chinese travelers.

Leveraging Huawei's cutting-edge ecosystem, including Petal Ads, HUAWEI AppGallery, and HUAWEIThemes, the partnership has brought Ras Al Khaimah's unique tourism offerings directly to the fingertips of millions of Chinese travelers. The collaboration delivered impressive results with campaigns including Golden Week, highlighting Ras Al Khaimah's stunning landscapes, rich culture, and unique experiences through Huawei's Petal Ads platform and prominent Chinese Key Opinion Leaders (KOLs).

William Hu, Managing Director, Huawei Consumer Business Group, Middle East and Africa Eco Development and Operation highlights: "Our partnership with Ras Al Khaimah reflects our shared aim for excellence and innovation, aligning with Ras Al Khaimah's vision to become a leading global hub for tourism and entertainment. Huawei ecosystem stands as the ultimate gateway for reaching the China market and attracting Chinese businesses to engage with our local market. With Petal Ads at its core, our solutions provide unparalleled access to Chinese audiences, fostering meaningful connections that drive tourism, business exchange and investments from China."

Raki Phillips, CEO of Ras Al Khaimah Tourism Development Authority (RAKTDA) added, "Our collaboration with Huawei has been a game-changer in how we engage with the Chinese travel market, which is currently in our top 10 source markets and presents immense potential for Ras Al Khaimah. By tapping into Huawei's ecosystem and leveraging their innovative platforms, we've been able to spotlight





our Emirate's incredible tourism offerings, firmly placing it on the travel map for Chinese travellers. This partnership has already delivered measurable results, and we are excited to continue building on this success."

As part of the partnership, Ras Al Khaimah played host to the HUAWEI AppGallery Gamers Cup on 16th November 2024, further bolstering its status as a dynamic tourism and entertainment destination. As the region's first-ever beachside allstar gaming tournament, the event set a



new benchmark for Esports events in the region, bringing together nearly 1,000 attendees.

RAKTDA's participation in the Huawei Developer Conference (HDC) 2024 MEA in November marked another milestone in the partnership's success. The conference served as a strategic platform to engage with key Chinese enterprises, showcasing the Emirate's unique positioning as a destination of the future and fostering deeper connections with the Chinese



MEET ICT and BITEX 2024 concludes with a focus on 'AI for All'

The MEET ICT and BITEX 2024 conference and exhibition concluded on a high note, focused on the transformative theme, 'AI for All.' Organized under the esteemed patronage of H.E. Dr. Shaikh Abdullah bin Ahmed Al Khalifa, Bahrain's Minister of Transportation and Telecommunications, the event was organized by Worksmart for Events Management in collaboration with the Bahrain Technology Companies Society (BTECH).

The theme, 'Al for All', underscores the critical importance of making AI accessible and beneficial to everyone. This initiative prioritizes democratizing access to Al education and resources, ensuring equitable access to AI technologies, and addressing potential risks such as job displacement and algorithmic bias. By fostering a diverse and inclusive AI ecosystem, the conference highlighted the importance of developing and deploying AI in ways that serve the needs of humanity while promoting justice and equity. Such a vision calls for a collective effort to shape an Al-powered future that is ethical, inclusive, and impactful for all.

Dan E Khoo, CEO of the World Information Technology and Services Alliance (WITSA), presented during his keynote speech, a compelling argument on the transformative potential of AI to revolutionize global economies. Drawing attention to the projected surge in GDP growth and job creation driven by AI adoption, Khoo introduced the concept of "agentic AI"—a paradigm where AI acts as an enabler to amplify human capabilities and accelerate development across all sectors.

Khoo emphasizes that countries should, and more so nations that rely on natural resources, transition to AI models of abundance, leveraging AI to build diversified economies less dependent









on finite resources toward sustainable growth. Khoo further outlined a sevencomponent framework for a successful Al ecosystem, breaking it down into the



following components:

1. Infrastructure: Building of AI factories with robust digital infrastructures at the



of humanity.

base for AI innovation and implementation.

- 2. Skilled: Setting priorities on AI education and skilling programs, creating incentives to attract and retain top talent in the domain.
- 3. Use Cases: Identifying specific applications of AI tailored to address various challenges and unlock opportunities through different industries.
- 4. Data: Availability of high-quality datasets, ranging from open government data contributions from the private sector toward supporting AI development.
- 5. Public Policy: Regulatory Environment for Innovation with Responsibility-Enhanced Trust and Accountability in the AI **Development Process**
- **6. Investment:** Foreign and Domestic Investment to Foster Al Initiatives and **Economic Growth**
- 7. Global Collaboration: Connecting national AI ecosystems to the global AI to facilitate knowledge, collaboration, and innovation across borders.

Khoo ended his speech with a strong call to action, urging nations to proactively invest in AI development. He emphasized AI's role as a pivotal catalyst for economic growth, diversification, and resilience, underlining the necessity of a unified effort to leverage Al's transformative potential to the benefit

AI: Driving Digital **Transformation Success**

A distinguished panel, moderated by Dr. Ali Alsoufi, was convened to discuss the pivotal role of AI in driving successful digital transformation. The panel consisted of experts from diverse fields, including the CEO of WITSA, the Data and AI Sales Lead at Microsoft Middle East, and the Executive Advisor for AI & Data Science at Nasser Artificial Intelligence Research and Development Centre.

companies can use it as an opportunity to

optimize operations, personalize customer interactions, and predict future trends.

key strategic enabler, for efficiency, growth,

and delivering better customer experiences.

A few examples include the chatbots, predictive analytics, tailored engagements that showcase a strengthening relationship, and loyalty. He ended by saying that AI is a

This was done with respect to multifaceted approaches by AI towards transforming businesses in varied industries. The panelists reiterated the crucial call for holistic digital transformation beyond technology; a profound transformation that will include a culture of organizations and their mindset through their employees. A crucial focus of the meeting pointed towards solid AI research and development that needs to sustain

Ideal Capital Management Consultants UAE's Strategic CFO and Board Member, Ramesh Subramanian, during his session on "Digital Transformation with AI at its Forefront and Customer Experience Journey Optimization at its Core," told participants that digital transformation is no longer optional but must be an intrinsic necessity to compete effectively. He pointed out that only with a customer-centric approach, through a data-driven culture, and an organizational mindset shift can the technology be well exploited.

Subramanian stressed the strategic importance of AI in this transition and how

Panel Discussion 1 Al: Driving the Success of Digital Transformation DR. ALI ALSOUFI ssociate Professor IT Consultant











innovative cycles, ensuring they're at par with innovation happening across industries. The transformative power of Alpowered solutions in improving customer experiences, optimizing operations, and driving new revenue streams through cloud computing and machine learning was underlined. Global collaboration and knowledge sharing across initiatives such as WITSA's global AI ecosystem network were also highlighted by the panel as crucial accelerators of AI adoption and benefits.

The panel discussion provided valuable insights into the challenges and opportunities presented by AI in the context of digital transformation. It underlined the importance of strategic planning, skilled workforce development, and a strong focus on ethical and responsible Al implementation to ensure a successful and sustainable future.

Empowering Women in the AI Era

A thought-provoking panel discussion led by Basma AlBalushi, CEO of Quality Excellence for Educational Consultancy, discussed the critical theme of "Empowering Women in the AI Era." Speakers include distinguished experts, namely Hayma Abbas Rahma, Senior IT Specialist at Alba; Uta Dee, Chief Artificial Intelligence Officer (CAIO) at Expertech.Al; and Hala Sulaiman, Cofounder and Managing Director of Beyond Borders Consultancy.

The discussion delved into the multifaceted ways AI can empower and potentially marginalize women. The panel emphasized



the importance of addressing the gender gap in AI education and careers, ensuring equal access to training and mentorship opportunities for women. They also discussed the potential of Al to mitigate gender bias in recruitment and hiring processes and to create more equitable and inclusive workplaces. For instance, AI-powered tools can analyze job applications objectively, minimizing human bias and ensuring that women are evaluated fairly based on their skills and experience. Furthermore, Al can automate mundane tasks, freeing up women's time and allowing them to focus on higher-level, more strategic work, thereby advancing their careers.

The importance of collaboration among the academia-industry-government partnership in achieving a more inclusive Al ecosystem was highlighted through the panel discussion. The active promotion of women's participation in AI research, development, and implementation would

therefore ensure that AI technologies are developed and deployed in a way that benefits all of society.

"AI is like the new oil," said Ahmed AI Hujairy, CEO of Thinksmart. "It's not just a tool, it's a fundamental shift that will revolutionize how we live. But to harness its power, we must invest heavily in AI skilling initiatives."

He continued, "Companies like Microsoft are leading the way, training millions worldwide. Bahrain must prioritize the development of a national AI strategy to ensure our workforce is equipped for this transformative era. Collaborating with global leaders like Microsoft is crucial to accelerate this process."

Al Hujairy said, "Skilling is not just training, but preparing our workforce for the future. We must ensure that our initiatives are aligned with real-world needs and have a measurable impact like



increased productivity, economic growth, and an improvement in the quality of life."

He concluded by emphasizing the importance of partnerships by adding, "Bahrain should make full use of its partnership with tech leaders to be one of the regional AI innovation centers in order to help Bahrain as much as to benefit the greater good of the region."

Securing the Future: Harnessing the Power of AI in Cybersecurity

With cyberattacks on the rise, a panel discussion moderated by Dr. Ali Alsoufi, Associate Professor and IT Consultant, could not have been more timely as it talked about the critical theme, "Securing the Future: Harnessing the Power of Al in Cybersecurity." The panel consisted of a distinguished group of cybersecurity professionals, including Ali Beshara, Founder and Cybersecurity Advisor at CyberCrest Consulting; Uta Dee, CAIO at Expertech. Al; and Arsalan Igbal, Director at CTM360.

The discussion quite aptly marked the urgent position AI now plays in both mitigating and exacerbating cybersecurity threats. Panelists debated how AI tools can be used for the detection of and response to cyberattacks in real-time: from identifying and blocking malware to anomaly detection in network traffic, as well as predicting potential vulnerabilities.

However, the panel also acknowledged the risks AI poses in the cybersecurity domain. As attacks become more sophisticated through deepfakes and social engineering, there is an ever-increasing need for a more proactive and multi-layered approach to cybersecurity, combining human expertise with advanced AI technologies effectively to counter evolving threats.

The panel concluded by emphasizing the importance of learning and adaptation in the context of changing cyber threats, which is rapidly evolving. In such a scenario, we can only succeed through collaboration between cybersecurity professionals, researchers, and policymakers with the power of AI in developing a more secure and resilient digital future.

Generative AI and the **Future of Work**

Chairman and the Group Chief Executive of

Etisalcom Rashid Al-Snan led the session. He was in discussion with George Faraj from the Project Management Office and Head of IT strategy of NBB, Group CEO of Thinksmart, Ahmed Al Hujairy, and CEO of WITSA Dan E Khoo, all talking about the major effect that Generative AI would bring about in regard to future work.

The discussion underlined that Generative Al is not a replacement for humans but an enhancement of human capabilities. It can free up employees to do more creative, strategic, and impactful work by automating repetitive tasks and providing valuable insights. However, this transition calls for massive upskilling of the workforce. Organizations need to invest in training programs to equip employees with the necessary digital literacy and AI proficiency to thrive in this evolving landscape.

The panel emphasized that traditional education will undergo a significant transformation. Learning will become more personalized and adaptive, leveraging Al-powered tools to provide customized learning experiences and cater to individual learning styles.

Ahmed Al Hujairy passionately challenged Bahrain to build deeper AI awareness, noting that the absence of understanding about the transformative potential of Al would hamper the country's progress in this critical area. He urged organizations and individuals to proactively engage with Al technologies and explore their potential for driving innovation and improving lives.



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The panel concluded by emphasizing that the future of work belongs to those who can effectively harness the power of AI. As George Faraj succinctly put it, "You will not lose your job to Al; you will lose your job to someone who can use Al." This underscores the critical importance of continuous learning, adaptation, and a proactive approach to embracing the AI-powered

Digital transformation is no longer a choice but an imperative for businesses looking to make their way upward in the rapidly evolving market. A session on "Digital transformation with AI at its forefront and Customer Experience journey optimization at its core" was led by Ramesh Subramanian, Strategic CFO and Board Member of Ideal Capital Management Consultants, UAE.

Digital transformation is a fundamental change in how a company operates, using technology to make things more efficient and enhance customer experiences and thereby gain a competitive advantage. This transformation will require a holistic approach in terms of not only the technological advancement but also a cultural shift within the organization. Companies must focus on becoming customer-centric in their value proposition, encouraging a data-driven culture that empowers employees to make informed decisions.

Al has become pivotal in this journey, through automation of repetitive tasks and analysis of large datasets that would point out trends and predict outcomes, personalization of customer interactions, and empowerment of business to run more efficiently, gather deeper insights, and provide superior customer experience in return for higher revenue, better customer satisfaction, and lower operational costs. From the support given through instant chatbots to predictive analytics anticipating customers' needs, Al-powered solutions are changing every aspect of the customer journey, leading to better relationships and sustainable growth.



Unleashing the Power of AI in Telecom

Led by Dr. Nasser Fouad, Advisor of the Arab Internet and Telecom Union, a panel was dedicated to the theme "Unleashing the Power of AI in Telecoms." The panel comprised Adeel Ahmad Khan, CTO at WAJDA; Rashid Al-Snan, CEO at Etisalcom; and Rashid Mohammed, CTO at Batelco.

One core takeaway from this session was the potential of AI applications across telecommunication domains. Panelists underlined numerous benefits pertaining to AI applications in network optimization and that network bottlenecks can be highlighted, traffic patterned predicted, and resource allocation optimized; all these would improve network performance, reduce latency, and lower OPEX.

Al is also revolutionizing customer support. Many telecom operators, such as Batelco with its AI-powered digital assistant "BASMA," are leveraging Al-powered chatbots to provide 24/7 customer support, answer frequently asked questions, and resolve basic issues efficiently.

Another potential of AI is intelligent traffic routing, and this can be discussed by analyzing real-time traffic data to predict demand. Telecom operators will optimize the routes on the network and make sure that service delivery is efficient and reliable, hence improving the customer experience,

while OPEX and CAPEX are reduced due to optimized resource usage.

The discussion also touched upon the critical need for regulatory adjustments to accommodate the rapid advancements in AI within the telecom sector. Clear guidelines and regulations are required to ensure that All is used ethically and responsibly, and consumers' data is protected and innovation is encouraged.

The panel strongly emphasized the paramount importance of data protection in the age of Al. Telecom operators must prioritize robust data security measures to safeguard sensitive customer data and maintain trust.

This panel discussion provided valuable insights into the transformative potential of AI in revolutionizing the telecom industry and shaping the future of telecommunications.

Industry 4.0 and its Transformative Impact on the Manufacturing Industry

In a session on the transformative impact of Industry 4.0 on the manufacturing industry, Tamer Hamed, CIO of Dubai Cable Company, shed light on the profound changes induced by technologies such as AI, robotics, IoT, and big data. It's transforming traditional factories into "smart factories" - interlinked networks of machines and



systems that optimize production, improve efficiency, and better serve customers.

Ducab uses data-driven information to optimize production, enhance efficiency, and improve customer experiences. The company uses data from its different sources to gain valuable insights from the production processes, identify areas for improvement, and optimize its operations. This data-driven approach enables Ducab

- Maximize Automation: Automate a multitude of aspects of the manufacture of a product- all aspects including design, material handling, logistics, and delivery. Robotics and also collaborative robots and automated guided vehicles are found within this level of efficiency by minimizing human intervention.
- Improve Customer Experience: Use the power of data to develop a customer-centric approach by understanding customers' needs and preferences. Ducab can then customize its products and services to meet specific customers' needs, improve order fulfillment, and deliver increased customer satisfaction.
- Operational Efficiency: Leverage Al and machine learning algorithms to ensure optimization of production schedules. They help predict potential issues ahead and minimize downtime. Consequently, this leads to marked productivity

improvements, reduced waste, and lower operational costs.

• Strengthen Sustainability: Support sustainability goals by using Industry 4.0 technologies to decrease energy consumption, minimize waste, and optimize resource use. This will contribute to the UAE's efforts in sustainable development and further a greener future.

Key success factors for Ducab's Industry 4.0 journey include robust IT infrastructure, a competent workforce, and a keen focus on data security and privacy. Based on these philosophies and continuous adaptation to the fast-changing technological landscape, Ducab is well-set to stay ahead in its cable and wire manufacturing line.

Beyond a single firm, Industry 4.0 carries broader implications. Manufacturing companies will thrive by

- Investing in technological advancements: Deploying AI, robotics, IoT, and other Industry 4.0 technologies to better the production processes.
- Skilling of manpower: Skilling is also important. Training of workers on new technologies so that an effective skilled workforce that could operate and maintain these high-end manufacturing systems was ready.

- Data-based management: Data collection and its analysis for gaining better insight about operations, identifying problem areas, and making well-informed decisions.
- Sustainability focus: Incorporating sustainability considerations at every stage of the manufacturing process from design and production to delivery and end-of-life management.

Embracing these principles will enable manufacturing companies to become more competitive, environmentally friendly, and sustainable while thriving in the rapidly evolving Industry 4.0 era.

The Impact of AI in Edtech

A panel discussion was conducted to discuss the deep impact of AI on education, with notable panelists: Professor Mansoor Alaali, President of Ahlia University; Dr. Cristine Georgantopoulou, Dean of Engineering, Design and ICT (Information and Communications Technology) at Bahrain Polytechnic; Dr. Khoula Al Harthy, Head of Computer Science and Creative Technologies at Global College of Engineering and Technology; and Dr. Mohammed Sharaf, CEO of An-Najah, National University.

The panel acknowledged that AI is a double-edged sword: immense potential but equally the need to address possible challenges. While AI holds promises of great personalization in learning, automation of administrative tasks, and provision of information for students, it also raises the possibility of job displacement among educators and the perpetuation of biases.

The discussion focused on the contrast between traditional classrooms where learning is mainly based on lectures and standardized assessments and Al-driven learning environments that provide learner paths. Al-driven tools can analyze students' data to identify various learning styles, strengths, and weaknesses, thus allowing the instructor to tailor instruction in with targeted support.





One of the core discussion points concerned developing critical thinking within an Al-Driven context. Panel members urged people to change focus from memorization to other higher-order cognitive skills including problem-solving, creativity, and critical analysis. Educators should, in a natural way, assimilate these AI tools to support enhancing those basic essential skills within students, as opposed to merely allowing them to have those skills performed on their behalf.

The session concluded by highlighting the importance of AI for ethical development and implementation in educational fields. Al tools, it is essential to mention, should be used in ways that do not enhance previous inequalities or impede the pace of human development; this is possible by thoughtful, strategic adoption of AI for the creation of learning opportunities that are engaging and equitably effective for all learners.

On the last day of MEET ICT and BITEX, workshops and training sessions educated the participants, one of which was the introduction of the Internet Impact Assessment Toolkit (IIAT) through Robin Wilton and Dr. Carl Gahnberg of the Internet Society. Internet Society is making the Internet bigger and stronger for everyone to connect, communicate, and innovate, now

and in the future.

Designed to empower stakeholders with a structured approach, the toolkit offers a stable frame of reference to evaluate current networking conditions, proposals for technological development, regulations, and technical governance arrangements. It helps people make better decisions about the Internet by providing an easily applicable lens through which to assess whether a new development supports or undermines what the Internet needs to exist and thrive.

An assessment would inform or measure any impact the Internet might have from proposals of a regulatory change or technology. It includes instructions, graphics, and multiple case studies and Internet Impact briefs to serve as illustrative examples of real-time issues and developments that impact the Internet.

The day concluded with a discussion on the findings of an extensive research project conducted in the region, exploring the impact of emerging digital technologies on regulation. This provided valuable insights into the evolving regulatory landscape and its implications for the future of the internet in the Middle East. The event stimulated active participation from the participants,

allowing for a fruitful exchange of ideas and views on issues and opportunities facing the Internet in the region.

MEET ICT and BITEX Bahrain discussed the potential of AI to transform industries across board. Discussions highlighted how the industries will be transformed the same way as significant breakthroughs such as the oil discovery changed the face of many

Additionally, it has underlined the importance of AI in education. The discussions underlined the need to transform teaching methodologies to prepare the future for AI and at the same time build up critical thinking and problemsolving skills.

These discussions underscored the need for Bahrain to proactively embrace AI. By developing a comprehensive national AI strategy, fostering collaboration among stakeholders, and investing in AI research, education, and infrastructure, Bahrain can position itself at the forefront of AI innovation, driving economic growth and enhancing the quality of life for its citizens.

MEET ICT & BITEX will return in 2025, showcasing even greater technology and fostering innovative discussions. Stay tuned!



Intersputnik's 2024 in Review

Intersputnik participates in IT symposium of International **Committee of Red Cross**

In the end of January 2024, a delegation from Intersputnik participated in the second symposium on cybersecurity and data protection in humanitarian action of the International Committee of the Red Cross (ICRC), held in Luxembourg.

The organisers highly valued the ideas put forward by the Intersputnik representatives and acknowledged their significant contribution to the event's substantive agenda.

Satellite technology plays a pivotal role as a critical success factor for humanitarian organisations when responding to emergencies in regions where communications and infrastructure are disrupted. In crisis situations, satellite technology often serves as the sole means of communication with the outside world.

proving crucial for both humanitarian missions and affected populations.

Intersputnik at ITU satellite workshop for developing countries in Geneva

On 23 April 2024, Intersputnik took part in a workshop on satellite communications for developing countries (Transformative connectivity: Satellite Workshop) in

The event was arranged by International Telecommunication Union (ITU) Telecommunication Development Sector (ITU-D). Andrey Kirillovich, Intersputnik's Director of Strategy, Marketing, and Business Development, was speaking at the Workshop. Kirillovich underlined the crucial role of satellite technologies in connecting remote regions with undeveloped infrastructure. He also emphasized Intersputnik's experience and potential of rolling out satellite deployment projects in developing countries, and provided brief

overview of the current innovations in the satellite communications industry that may lower the costs of connecting remote communities and regions.

Apart from Intersputnik, the other speakers at the Workshop included top officials from ITU and Global Satellite Operators Association (GSOA) as well as from leading satellite operators such as ABS Global, Eutelsat Group, Intelsat, SES, Telesat, and New Space companies such as Amazon Kuiper and Sateliot.

At the session "The impact of satellites in delivering broadband connectivity in developing countries, including in rural and remote communities" Andrey Kirillovich described potential options of widespread deployment of satellite communications in developing countries, and stressed the importance of an open international cooperation for this process.

Intersputnik at CABSAT 2024





anniversary exhibition in Dubai

The CABSAT exhibition, the largest and most important forum for the satellite communications and broadcasting industry in the Middle East, was held in Dubai, UAE from 21 to 23 May 2024.

The event also brings together many visitors from Africa, Europe and South Asia. The CABSAT exhibition and conference is a platform for discussing commercial projects, making deals and shaping industry trends. This year the exhibition has celebrated its 30th anniversary.

Intersputnik participated in the event with a stand, presenting communication and broadcasting solutions powered by its own combined satellite constellation of GEO satellites under the common name IK and consolidated network of groundbased technical facilities and teleports of the Members, Signatories and other partners of the Organization. The Middle East region is currently facing high demand for telecommunications services, with a number of countries implementing or preparing to implement programmes to connect remote regions, and the corporate sector actively digitalising its operations and adopting cloud services.

By leveraging the space and ground infrastructure of national operators, Intersputnik is capable of solving social, commercial and governmental tasks in various regions of the world, including Middle East, in the most efficient way possible. The work with international organisations and close partnership with regulators of the Member States significantly improve the efficiency of satellite projects in terms of regulatory support and frequency allocation. The experience and expertise of Intersputnik experts allow tailoring any solutions to specific markets and tasks.

NatSatTel-2024 - Key trends in the global satellite communications industry

Intersputnik and the Satellite Markets & Research analytical agency hosted the NatSatTel-2024 international conference "Innovative Technologies and Services in the Global Satellite Industry" on 11 June 2024.

The conference speakers included representatives of leading players and analysts of the satellite communications market. A separate conference session with the participation of the International Telecommunication Union (ITU) discussed gender equality and the involvement of girls in the processes of technological and digital development of humankind. The online conference NatSatTel-2024 brought together more than 150 people from 38 countries of Africa, the Asia-Pacific region, the Middle East, North and South America, Central Asia and Europe.

Ksenia Drozdova, Director General of Intersputnik, addressed the conference participants with a welcoming speech. She emphasized the role of Intersputnik in uniting national, regional and international players in the satellite communications industry with the aim of improving the quality of life and achieving the UN Sustainable Development Goals (SDGs). Virgil Labrador, Editor-in-Chief, Satellite Markets & Research, moderated the conference.

Vivek Prasad, Senior Analyst of Analysys Mason, presented the key trends in the development of the satellite communications industry. First of all, this is the use of High Throughput Satellites (HTS) with flexible payloads, which reduce the cost of traffic transmitted. Industry development will drive the demand from 5G market players as the ecosystem matures. Artificial intelligence (AI) will allow flexible management of satellite network resources, increasing the demand and competitiveness. After 2030, AI will be deployed in most satellite networks for use in the majority of customer scenarios.

Vivek Prasad also noted such a factor as the beginning of mass production of flat antennas. In the coming years, this will reduce their price, which will open up new markets for satellite communications.

For non-geostationary systems, the key development factor will be the use of intersatellite laser communication channels and optimization of networks due to a smaller number of gateways.

At a session on non-geostationary systems (NGSO Constellations: Enabling Key Applications), Jaume Sanpera, CEO at Sateliot, Majdi Atout, Senior Consultant IoT at APPLIOT, and Andrey Kirillovich, Director of Strategy, Marketing and Business Development at Intersputnik, discussed the opportunities for the market of nongeostationary constellations for satellite broadband communications and satellite Internet of Things.

speakers of the session included Hagay Katz, Chief Product and Marketing Officer at Gilat Satellite Networks, Vaibhav Maigow, VP-International Division at Hughes, and Alvaro Sanchez, CEO at Integrasys.

The round table "Girls In ICT. Leadership (Satellite)" was moderated by Natalia Mochu, Head of the ITU Regional Office. She spoke about ITU's policy to inspire and encourage girls to pursue their ICT education and careers with the aim to fully and effectively participate in digitalization and technological development. Natalia Mochu believes that one of the most effective methods of such encouragement is role models, success stories told by

Ministry of Digital Development of the Kyrgyz Republic; Khadra Farah Mohamed, Telecom Engineer at DalKom Somalia.

52nd session of the Board and 27th session of the Operations Committee

At the invitation of the Ministry of Communications of the Republic of Cuba, the joint 52nd session of the Board and 27th session of the Operations Committee of the Intersputnik International Organization of Space Communications was held in Varadero on 25 June 2024.

Ana Julia Marine López, Vice Minister of Communications of the Republic of Cuba, was elected as the new Chairperson of the Intersputnik Board, succeeding at this post Vugar Bayramov, who represented the Space Agency of the Republic of Azerbaijan.

Important decisions made during the joint session included the approval of Intersputnik's performance results for 2023, the endorsement of further implementation of the project to support young professionals in the Organization's member countries, and the assignment to prepare for the World Radiocommunication Conference 2027 of the International Telecommunication Union.



In his speech, Andrey Kirillovich noted the advantages of Intersputnik, which could integrate any satellite assets, including nongeostationary systems, into its activities. He drew attention to the fact that for many countries it was extremely important to develop their proprietary satellite communications industry, investing in their own economy and hosting of technologies, thereby solving national problems in meeting the needs of connecting people on domestic market.

At the "Game Changing Technologies and Solutions" session representatives of satellite equipment vendors presented new solutions for the satellite market. The

female leaders who continue a successful ICT career. Especially in such a complex sector as satellite communications. The round table included the following speakers: Caroline De Vos, COO and Founding Partner at neXat; Revathi Manneppalli, Member of the ITU Radio Regulations Board, Joint Wireless Adviser at the Ministry of Communications of the Republic of India; Sahiba Hasanova, Member of the ITU Radio Regulations Board, Leading Adviser at the Ministry of Digital Development and Transport of the Republic of Azerbaijan; Aichurok Maralbek, Chief Officer of the Spectrum Management Department at the Service for Regulation and Supervision in the Communications Industry under the

Intersputnik at the meeting of the Board of the RCC CAs Heads in Minsk

In early June 2024, in Minsk (the Republic of Belarus) Intersputnik delegation attended the joint 6oth meeting of the Board of the Communications Administrations' (CAs) Heads – Members of the Regional Commonwealth in the Field of Communications (RCC) and the 30th meeting of the Coordination Council of the CIS Member-States on Informatization at the RCC.

The meeting addressed the hot topics related to the information and communication policy in RCC member states, in particular, monitoring of the Sustainable Development Goals (SDGs) performance in the CIS region, current problems of AI technology legal

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regulation, proposals for the RCC's development strategy until 2028. Some important agreements were signed for the development of the information and communications industry of the RCC member states.

During the event, an official ceremony was held to award Intersputnik an honorary diploma "For Active Cooperation with the Regional Commonwealth in the Field of Communications". Intersputnik is committed to fundamental principles of open and equitable cooperation, therefore, the Organization supports any workable initiatives to join efforts in order to use communication technologies to improve the quality of people's life and achieve the SDGs. Intersputnik has had an observer status in the RCC since 2007. Its representatives attend the meetings of the Board of the RCC CAs Heads, are members of RCC working groups and the Expert Council of the IPA CIS - RCC. Eight Intersputnik's member countries are RCC members, and another two have an RCC observer status.

Intersputnik and RASCOM agree on a strategic partnership

The Intersputnik International Organization of Space Communications and the Regional African Satellite Communications Organization (RASCOM) have made an agreement on cooperation in satellite communications and other areas of mutual interest.

The signed document provides for mutual consultations, participation in events held under the aegis of both international organisations and the possibility of exchange of information and documents.

In the agreement, Intersputnik and RASCOM stated mutual recognition and respect for the status and mandates of both organisations, and established a long-term working relationship. As part of cooperation promotion, the organisations plan to attend formal and informal events, such as meetings of the Assembly of Parties





of RASCOM and sessions of the Board of Intersputnik.

Intersputnik and RASCOM have agreed to discuss issues affecting their activities, and to exchange information and documents of mutual interest, with the exception of confidential ones. Such an exchange will make it possible to coordinate the efforts of both organisations in the International Telecommunication Union, the UN Committee on the Peaceful Uses of Outer Space (COPUOS), Global Satellite Operators Association (GSOA) and other international and regional intergovernmental and nongovernmental organisations.

Intersputnik participated in ITU Space Sustainability Forum in Geneva

On 10-11 September 2024, in Geneva (Switzerland), Intersputnik took part in the Space Sustainability Forum 2024 of the International Telecommunication Union (ITU). Speaking at the Forum, the Organization's Executive Director Elina Morozova noted the importance of coordinating efforts across the industry to address the problem of sustainable space and outlined Intersputnik's concept for the joint use of satellites. The creation of satellites using the so-called "cooperative model" allows for a reduction in the load on



the orbital frequency spectrum and on outer space.

At the opening of the Forum, ITU Secretary-General Doreen Bogdan-Martin said that satellites had become critical infrastructure supporting sustainable life on Earth, while space had been playing a major role in achieving the Sustainable Development Goals (SDGs). At least 40% of the SDGs rely on remote sensing systems, navigation and other space technologies. Only a sustainable space will allow humanity to avoid jeopardizing the progress satellites are making and, first and foremost, the universal connectivity of the Earth's population. So, it is now extremely important to take steps to ensure a sustainable space environment – free from radio interference and debris. The 2023 ITU Radiocommunication Assembly adopted a resolution on the sustainable use of outer space, which instructed the ITU Radiocommunication Sector to develop guidelines for effective de-orbiting and disposal strategies for end-of-life satellites.

Intersputnik's Executive Director Elina Morozova stated that the Organization supported the initiatives of international organisations to create and preserve sustainable outer space and was actively working in this direction. As one of such initiatives, Intersputnik proposed the concept of joint use of satellites for communications and television

broadcasting networks. This cooperative model will reduce the load on both the orbital frequency spectrum and outer space.

Intersputnik at SATCOMRUS-2024

On 3 October 2024, in Yaroslavl (Russia), Intersputnik's representatives attended the SATCOMRUS-2024 conference organised by Intersputnik Signatory – Russian Satellite Communications Company (RSCC), a satellite communications operator.

This event is held on a regular basis and is a significant industry forum on the development of civil satellite communications systems and digital TV broadcasting in member countries of the Regional Commonwealth in the Field of Communications (RCC), which includes countries located in Eastern Europe, Eastern, Western and Central Asia.

Intersputnik's Director General Ksenia Drozdova spoke at the plenary session dedicated to strategic aspects of satellite industry development. She informed the audience about the capabilities of Intersputnik as an intergovernmental organisation uniting 25 countries to improve the efficiency of implementing global and regional projects using satellite technologies. Ms. Drozdova's speech was devoted to the processes ongoing in the global satellite industry and the tools used by Intersputnik to promote the industry

development and international cooperation in the context of market transformation, expansion of multi-orbit satellite constellations, implementation of artificial intelligence-based systems and deployment of software-defined infrastructure elements.

Intersputnik at IAC 2024 in Milan: Responsible Space for Sustainability

The theme of IAC 2024 was "Responsible Space for Sustainability". Intersputnik partnered the event as a silver sponsor and presented its own exhibition display dedicated to Youth Far Beyond Borders, Organization's project for young people.

The 75th International Astronautical Congress (IAC 2024) was held on 14-18 October in Milan, Italy. The Intersputnik delegation to IAC 2024 included young professionals from the Member States - Belarus, Cuba, Hungary, India, Kazakhstan, Kyrgyzstan, Mongolia, Russia, Somalia and Viet Nam. As part of the congress conference programme, Intersputnik's Executive Director Elina Morozova was speaking at the session "Artificial Intelligence and Safe Space Communication".

As a partner and silver sponsor Intersputnik deployed its own exhibition display at IAC 2024 dedicated to the Youth Far Beyond Borders project to support talented young space activities professionals from Intersputnik Member States.

Innovation and international cooperation as a basis for satellite communications development

The International Symposium "Developments in Space Communications - the Regional Balance and Challenges" was held in Sharjah (UAE) on 5-7 November. It was organised by the Asia-Pacific Space Cooperation Organization (APSCO) with the support of the University of Sharjah and the Arab Union for Astronomy and Space

The symposium participants agreed



that with the increasing communication satellites throughput, decreasing network traffic costs and growing competition, satellite communications are becoming a very effective tool for bridging the digital divide in different regions of the world. The implementation of new technologies such as digital flexible software-defined payloads, non-geostationary constellations, very high throughput satellites (VHTS), virtualised ground infrastructure and electronically-steerable flat panel satellite antennas will seamlessly integrate space technologies into the 5G ecosystem, thus ultimately making satellite communications more affordable for the end user in general.

Intersputnik participates in the development of ITU-R fundamental documents

From 21 to 31 October in Geneva (Switzerland), the Intersputnik delegation took part in the 55th meeting of Working Party 4A "Efficient orbit/spectrum utilization for the fixed-satellite service and broadcasting-satellite service" of the Radiocommunication Sector of the International Telecommunication Union (ITU-R).

During the meeting, Intersputnik experts presented two substantial and structural proposals on the content and layout of one of the fundamental documents, the ITU-R Satellite Communications Handbook, as well as another strategic document, the ITU-R Handbook on Best Practices for the Sustainable Use of Frequencies and Associated Non-GSO Orbits by Space Radiocommunication Services. Also, Intersputnik representative was appointed as the editor of the second handbook.

The main purpose of the 55th meeting of Working Party 4A was to prepare proposals for the next World Radiocommunication Conference 2027 (WRC-27). Satellite communications experts from all over the world involved in the working party have elaborated the protection criteria against interference of broadcast and communications satellite systems and



continued to develop a methodology for assessing mutual interference of satellite systems located in different orbits.

Another important objective of the

meeting was to work on the ITU-R reference materials — the updated Satellite Communications Handbook and the Handbook on Best Practices for the Sustainable Use of Frequencies and Associated Non-GSO Orbits by Space Radiocommunication Services. Mechanisms for updating the first handbook were identified, and a methodology for elaborating the second handbook was compiled. ITU handbooks contain important up-to-date information on the state of a particular sector of the communications industry. They are designed to help the market players to develop their services competently, taking into account current regulatory trends.

The vast experience of Intersputnik in expanding international cooperation, as well as in improving the regulatory and legal framework of the satellite communications industry allowed the Organization's delegation to present two important proposals for the abovementioned handbooks during the working party meeting. Both proposals were connected with the areas in which the Organization's experts have maximum

competence. Specifically, at the proposal of Intersputnik, the draft table of contents for the Satellite Communications Handbook was supplemented with the new chapter on international cooperation in satellite communications.

Africa Region is Focus: Intersputnik and DalKom Somalia at AfricaCom 2024

Intersputnik, in partnership with DalKom Somalia, participated in the largest regional exhibition and conference dedicated to current trends in the field of ICT technologies on the African continent - AfricaCom 2024. The joint stand presented state-of-the-art solutions for the development of high-tech satellite infrastructure, connecting remote areas and providing up-to-date satellite services in African countries.

At AfricaCom 2024 Intersputnik and Organization's Signatory - DalKom Somalia - presented hybrid solutions for data and video transmission adapted for use on the African continent. Intersputnik combined satellite fleet, geographically distributed network of satellite teleports and terrestrial fibre-optic network of DalKom Somalia make it possible to choose the best option for implementing the project and providing services in any region of Africa.

WTA Certification Program announces Tier 4 Certification of Es'hailSat's Al Ghuwayriyah (Doha) Teleport



Es'hailSat has achieved Tier 4 certification of its Al Ghuwayriyah (Doha, Qatar) Teleport under WTA's Teleport Certification Program.

The Al Ghuwayriyah certification marks the 69th issued since the program was launched at IBC 2015, and another 5 teleports are currently engaged in the quality evaluation process. The program provides transparent, independently verified standards as a means for teleports to differentiate themselves and for customers to choose the price-performance level suitable for their applications.

Certification was issued after a thorough audit of the Teleport by a WTA Auditor, to independently validate the data submitted in the detailed questionnaire, against standards developed by WTA's Certification Committee. Full WTA Certification is generally issued at a Tier number from 1 through 4, of which 4 represents the highest degree of excellence, and remains in effect for 3 years.

Certifications have previously been issued to teleports operated by IABG Teleport, A1 Telekom Austria Group, Hispasat, Gomedia



Ali Ahmed Al-Kuwari President and CEO, Es'hailSat

Satcom, Azercosmos, Speedcast, Servicio Satelital, USEI, AXESS Networks, Yahsat, STN, Eutelsat, du, COMSAT, Nilesat, e&, Optus, Horizon Teleports, Telespazio, Vivacom, Cyta, PlanetCast, Globecast, KT sat, Singtel, Hellas Sat, Orange, Hawaii Pacific Teleport, Intelsat, Globecast, SMS, Telstra, Primacom, Santander Teleport and

"Es'hailSat is proud to achieve Tier 4 certification of our state-of-the-art Teleport facility in Doha" said Mr. Ali Al Kuwari, President & CEO at Es'hailSat. "It

underscores the high quality of service that we have been providing our customers from across the Middle East and North Africa region, be it on the broadcasting side or from our data connectivity portfolio. It also is a testament to the efforts put in by the entire team in achieving this prestigious certification, for which we are truly delighted."

"WTA has now certified six teleports across the Middle East, all at our highest Tier 4 level," said executive director Robert Bell. "The region is becoming a key growth region for the commercial satellite industry, and WTA-Certified teleports are ready to supply the explosively growing demand for greater bandwidth."

WTA's Teleport Certification Program serves both teleport operators and their customers by creating an objective, transparent, and internationally accepted method for teleport operators to document the quality of their operations for customers and strategic partners. It also provides a means for customers to select teleport vendors delivering the price-performance level that is appropriate for their applications.



Eutelsat selects Airbus Defence and Space to build OneWeb LEO constellation extension

Eutelsat Group has selected Airbus Defence and Space to build the extension of its OneWeb low Earth orbit (LEO)

Under a contract signed between the two companies, Airbus will build the first batches of the extension, totalling 100 satellites, with delivery targeted starting end of calendar-2026, ensuring continuity and enhancement of service for current and future customers.

The new satellites will embark key technology upgrades, notably 5G on-ground integration. They will be technologically compatible with Europe's IRIS2 constellation, paving the way for its entry into operational service in 2030, and of which Eutelsat will be the main architect and operator of the LEO segment.

The procurement of these satellites is integrated within Eutelsat's Capital Expenditure outlook for 2025, and fully compatible with its longer-term financial



framework

Eva Berneke, Chief Executive Officer of Eutelsat Group commented: "We are relying on our long-standing partner, Airbus, to begin building the first batches of the Next Generation of our OneWeb LEO constellation, which will ensure we deliver continuity of service

of the existing constellation with enhanced service features, as we move towards an architecture in line with the IRIS2constellation in 2030. Our in-market experience shows us that the appetite for low Earth orbit capacity is growing rapidly, and we are excited to embark on the next stage of our journey to satisfy that demand."

Gilat secures over \$18 million orders addressing demand for IFC solutions

Gilat Satellite has secured over \$18 million in orders for in-flight connectivity (IFC) solutions. These orders are mainly for Gilat SkyEdge platforms, related services and SSPAs. The equipment and services are scheduled for delivery within the next 12 months.

These orders highlight the confidence in Gilat's advanced technology and solutions to address the unique challenges and opportunities in IFC services. Gilat's flexible architecture enables reliable satellite connectivity, supporting the rapid expansion of IFC networks.

"These orders reflect the growing demand for advanced connectivity solutions for the IFC market, which is a strategic market for us" said Amir Yafe, VP of Mobility & Global Accounts at Gilat. "Gilat's technology is designed to equip service providers with the scalability and performance needed to meet this demand head-on." 🗖





Deloitte Middle East upgrades tax and legal Gen AI solutions and enhances offerings to accelerate Al adoption

Deloitte Middle East's Tax and Legal practice has launched the second generation of its in-house pioneering Alpowered solution, Tax Genie 2.0, designed to drive innovation in an increasingly complex tax landscape. Deloitte is at the forefront of AI adoption to reshape and transform industries, with cutting edge solutions that set new standards for

Developed by the Middle East chapter of the Deloitte Al Institute, Tax Genie 2.0 encompasses all areas of the Tax & Legal business, including tax, legal, finance, human resources, risk management, and beyond for Tax professionals. Tax Genie 2.0 is based on GPT-40 with RAG architecture. Using the principles from Tax Genie 2.0, to help Tax & Legal clients ensure a successful adoption of Gen AI solutions, Deloitte employs a robust approach to GenAl implementation that spans every phase—from initial assessment and strategy development to continuous optimization.

Muhammad Bahemia, Deloitte Middle East Tax and Legal Leader, highlighted the transformative potential of Tax Genie 2.0, stating, "The launch of the second iteration

of Tax Genie exemplifies our unwavering commitment to innovation in tax and legal services across the Middle East. Our vision is to ensure our clients are well positioned on Gen AI to lead and succeed in the future. Our clients can benefit from Deloitte's innovation and deep technical capabilities in Gen AI in the Tax & Legal space and this has consistently positioned us as global Leaders."

Although being an in-house platform, Tax Genie 2.0 is a flagship example of Deloitte's GenAl capabilities. The platform features over 1,000 specialized workflows for a wide spectrum of tax, legal and operational matters. With an intuitive interface and workflow-based architecture, the platform is designed for ease of use, enabling tax and legal professionals to leverage its capabilities without the need for specialized technical skills.

Yousef Barkawie, Deloitte Middle East Partner, and AI & Data Leader, emphasized the significance of this launch, stating, "The combination of generative AI with human insight and data will drive innovation, upgrade business models, and boost efficiencies, all within a secure ecosystem. Our GenAI offerings drive substantial value

and directly impacts service delivery across various business functions, setting a new standard in the industry. The hand-in-hand working relationship between our Tax and Legal professionals and our AI & Data experts, combined with the Deloitte Al Institute innovations and creativity, are all enabling us to push boundaries and create impact for our clients and people, which is truly remarkable."

Using the workflow-based principles of Tax Genie 2.0, Deloitte's approach focuses on addressing the specific challenges businesses face today in their tax and legal issues, driven by a deep understanding of each organization's specific tax and legal pain points, operational context, and strategic objectives. By merging Deloitte's industry knowledge with advanced AI technology, Deloitte' Gen AI offering enables clients to unlock new efficiencies, uncover valuable insights, and achieve holistic digital transformation in areas like the Tax & Legal domain.

The Deloitte offering supports clients throughout the whole journey of AI adoption, establishing itself as the partner of choice for organizations seeking to harness Gen Al's transformative power.





du partners with Cyberspace Technologies to revolutionize business management through Tairra

Tairra helps businesses optimize their workflow, boost productivity and improve team coordination in an efficient all-in-one platform



du has signed an exclusive partnership with Emirati firm Cyberspace Technologies for Tairra, a business management platform dedicated to optimising operations for teams of varying sizes. The agreement was signed by Fahad Al Hassawi, CEO of du and Abdulla Khalifa Al Shaer Al Mansoori, Managing Partner at Cyberspace Technologies.

The collaboration aims to revolutionise business management by offering a comprehensive all-in-one platform that enhances customer experiences and drives innovation. du will introduce Tairra's integrated business collaboration suite to business clientele, consolidating essential tools onto a single platform.

Fahad Al Hassawi, CEO of du said: "We are excited to announce our partnership with Tairra, marking a significant step forward in our journey to revolutionise the digital landscape for businesses in the UAE. Our collaboration is founded on a shared vision to simplify complexities in business management through innovative technology. By integrating Tairra's comprehensive suite into our services, we are offering our customers a transformative tool that not only enhances operational efficiency but also elevates the overall customer experience."

Customers will benefit from seamless team coordination, streamlined project management, efficient client relationship management, dynamic chat functionalities, organised file management, suite of productivity tools and a gamified loyalty program - all managed through a user-friendly administrative dashboard.

Abdulla Khalifa Al Shaer Al Mansoori, Managing Partner at Cyberspace Technologies, said: "Our platform is designed to meet the dynamic needs of

today's businesses, offering tools that streamline operations, boost productivity, and foster team collaboration. We are committed to this collaboration with du, as it aligns with our mission to innovate and deliver solutions that not only support business growth but also enhance the way teams work and interact."

Tairra's flexible hosting options, whether on the cloud or client premises, prioritise data security and compliance. With Tairra's automation capabilities and efficiency enhancements, businesses can optimise workflow, boost productivity and team coordination.

du and Tairra are at the forefront of reshaping the future of business management through cutting-edge technology with a customer-centric approach and empowering businesses with the tools they need to thrive in a rapidly evolving market. II

Huawei and KEMS Zajil Telecom launch "Huawei eKit" to empower SMEs in Kuwait



Mohamed Al Noaimi, KEMS Zajil CCO; Yusuf Ahmed, KEMS Zajil CEO; Jeff Zhu, Huawei Kuwait CEO; Chungcheong Fu, General Manager, Huawei Kuwait; Jackson Sun, Commercial & Distribution Director, Gulf North Region

KEMS Zajil Telecom and Huawei joined forces to host an exclusive event highlighting their collaborative efforts to empower small and medium enterprises (SMEs) in Kuwait. The centerpiece of the event was the launch of the Huawei eKit, a state-of-the-art solution developed to address the unique needs of SMEs in today's competitive digital landscape.

The event highlighted the strong partnership between Huawei eKit's cuttingedge technology and KEMS Zajil Telecom's expertise as a leading digital solutions provider, demonstrating their combined ability to deliver SMEs a comprehensive suite of tools for seamless digital transformation.

Designed to optimize operations, enhance network reliability, and reduce costs, the Huawei eKit enables SMEs to focus on growth and innovation. This collaboration between KEMS Zajil Telecom and Huawei underscores their commitment to providing agile, innovative solutions that drive efficiency, boost connectivity, and support the growth of SMEs across Kuwait.

HUAWEI eKit has provided scenariobased solutions covering micro, small, and medium-sized scenarios. With these scenario-based solutions, partners expand their business boundaries, and SMEs have more differentiated choices. For example, the Wi-Fi 7 AP, 2.5GE switch, and 10G core switch can be adopted together to upgrade the office bandwidth of SMEs. The all-in-one wall plate AP, GE & 2.5G converged access switch, and all-optical core switch are used to upgrade the network of budget hotels on

The event featured an in-depth demo session, offering attendees a hands-on experience with the Huawei eKit and its powerful capabilities. Complementing this, KEMS Zajil Telecom showcased its advanced connectivity solutions, demonstrating how it seamlessly integrate with the Huawei eKit to deliver a robust and comprehensive suite of tools for SMEs.

Yusuf Ahmad, CEO of KEMS Zajil Telecom, commented: "The launch of the Huawei eKit SME Network marks a significant step forward in supporting SMEs with cutting-

edge technology and efficient solutions. This collaboration reflects our commitment to empowering businesses with robust, cost-effective tools that enhance operational efficiency and drive sustainable growth. Together with Huawei, we are enabling SMEs to thrive in an increasingly digital world."

Jeff Zhu, CEO of Huawei Kuwait, added: "At Huawei, we are committed to empowering businesses of all sizes with innovative solutions that drive digital transformation. Our collaboration with KEMS Zajil Telecom reflects our shared vision of supporting SMEs in Kuwait by providing them with advanced tools like the Huawei eKit, designed to optimize operations, enhance connectivity, and unlock new opportunities for growth."

With this collaboration, KEMS Zajil and Huawei eKit aim to empower SMEs by delivering a seamless and robust infrastructure, simplified network management, and enhanced connectivity tailored to meet the demands of modern



ZTE and Indosat expand digital experience in Indonesia through iFlexiTrunk Microwave **Backbone technology**

ZTE Corporation has collaborated Ooredoo Hutchison to transforming digital experience across Indonesia. This partnership leverages ZTE's cutting-edge microwave technology to bring reliable and high-speed communication to remote islands and rural areas, by enabling more rural Indonesians to enjoy the marvelous Indosat 4G network.

Indonesia, with its 17,000 islands and challenging geography, faces significant hurdles in building communication infrastructure. Traditional wired communication struggles with the country's rugged terrain and high costs, leaving many areas digitally disconnected. This lack of access hinders economic opportunities and limits societal development, emphasizing the urgent need for cost-effective and accessible solutions.

To tackle these challenges, ZTE and Indosat have deployed over 550 ultracapacity backbone microwave links across Indonesia, covering nearly 80% of major cities and remote islands. ZTE's innovative microwave technology is specifically tailored to Indonesia's needs, providing ultra-capacity and long-distance transmission. The deployment has been achieved with remarkable speed and efficiency, connecting previously inaccessible regions and enabling communities to transition from "nonconnected " to "connected."

The microwave solution integrates multiple advanced features to address Indonesia's unique environmental conditions. ZTE's multi-frequency Ultra Broadband Antennas (UBA) allow flexible frequency selection, reducing tower load and rental costs. Customized Branching Units minimize hardware requirements, enhancing cost efficiency while maintaining high performance. Built to withstand Indonesia's harsh weather, including heavy rain, strong winds, and corrosion, the

equipment ensures long-term reliability. The integration of advanced 4T4R Modem boards and intelligent energy-saving technology enables rapid deployment with minimal resource consumption. Moreover, the scalable design supports seamless upgrades, allowing for capacity expansion by up to eight times and coverage extension to new areas.

Desmond Cheung, Director and Chief Technology Officer of Indosat Ooredoo Hutchison, commented, "At Indosat, we are committed to empowering Indonesia by bridging the digital divide. This partnership with ZTE reflects our dedication to connecting communities across the nation, regardless of geographic challenges. By deploying advanced technology, we are not only improving digital experience but also unlocking opportunities for economic and social progress, creating a brighter digital future for Indonesia."

This initiative has significantly boosted Indosat's subscriber numbers, particularly in remote areas, where backhaul capacity in regions like Sumatra and Kalimantan has surged to 2-3 Gbps, with peaks reaching 6 Gbps. Residents now enjoy uninterrupted access to real-time information, online education, and digital entertainment.

Kevin Chen, Sales Director of PT. ZTE Indonesia, commented, "We believe this successful collaboration will breathe fresh life into Indonesia's digital transformation journey. When residents in remote areas of Indonesia went online and enjoy the high quality internet service, we were as excited as they were! ZTE are committed to seizing strategic opportunities in digitalization, intelligence, and low-carbon development. ZTE Microwave Backbone connects ZTE, Indosat and Indonesian residents together, and will explore more new possibilities in communication ways, contributing to the digital economic growth of Indonesia and the global community."

China Mobile Shaoxing collaborates with ZTE to complete the pilot of "fiber fingerprint" intelligent ODN solution in live network

ZTE has completed the pilot project for an intelligent Optical Distribution Network (ODN) solution leveraging "fiber fingerprint" technology. The project, undertaken in collaboration with China Mobile Shaoxing, was implemented at Shengshi Mingyuan residential community in Shaoxing.

The solution involved the reconstruction and upgrade of the existing ODN network to enable intelligent management and maintenance features, such as topology visualization, resource visualization, and intelligent operation and maintenance (O&M) for home broadband scenarios. It achieved precise identification of splitter port usage, increasing the ODN resource accuracy to over 95%. Additionally, it revitalized approximately 16.1% of idle splitter port resources and reduced the average fault delimiting time by about 90%.

Traditionally, optical access ODN networks have operated as passive "dumb" pipelines, leading to persistent challenges such as difficulty in refreshing resources, locating faults, and proactively identifying optical path quality. ZTE's innovative "fiber fingerprint" intelligent ODN solution addresses these issues by enabling precise identification of optical splitter port statuses, intelligent topology restoration, and accurate identification and localization of optical path quality and faults.

By employing technologies like optical path identification, high-precision detection, and AI analysis, the solution transforms the "dumb" ODN pipeline into a "smart" one. This transformation enhances the accuracy of ODN resources, revitalizes idle resources, and significantly boosts O&M efficiency, paving the way for an end-to-end digital and intelligent optical access network.

Ericsson and Beyon renew MoU, strengthening sustainability and circular economy efforts



Ericsson and Beyon have renewed their collaboration to expand their joint sustainability initiatives and circular economy practices for building energy-efficient networks in Bahrain.

They have also announced the successful outcomes of their sustainability collaboration, signed in early 2024, for accelerating the journey to a Net Zero future for both companies and managing Waste from Electronic and Electrical Equipment (WEEE). The Memorandum of Understanding (MoU) aimed to reduce Beyon's environmental footprint by addressing energy consumption and carbon emissions on live networks operated by Batelco, part of the Beyon Group, using Ericsson's sustainable solutions.

Implementation of this MoU has so far resulted in a 30 percent energy reduction on Batelco's network by the deployment of the Ericsson 5G Radio Access Network product, Radio 6646, a triple-band, tri-sector radio that can do the job of nine radios.

Additionally, energy-saving software features such as Cell Sleep Mode and Artificial

Intelligence (AI)-powered MIMO Sleep Mode, were implemented on pilot sites, leading to a 22 percent average reduction in energy consumption where the features where activated. A further 18 percent energy reduction was realized through the deployment of the single-antenna footprint Interleaved AIR 3218 compared to AIR 3227 to provide 5G Massive MIMO while addressing space constraints on rooftops and towers.

The collaboration also underscores circular economy practices, and an e-waste recycling initiative has been launched under the Ericsson Product Take-Back Program. These efforts enable Beyon to recycle end-of-life electronic and electrical equipment in a responsible and sustainable way, supporting the Group's e-waste management efforts.

Furthermore, the collaboration also focused on knowledge sharing, with monthly sessions involving global experts discussing climate action, circularity, and the collective efforts required to achieve Net Zero goals.

Shaikh Bader bin Rashid Al Khalifa, Beyon Chief Communications & Sustainability

Officer, says: "Our partnership with Ericsson demonstrates the substantial progress that can be made through focused sustainability initiatives. The outcomes reflect our commitment to energy efficiency and our goal to reduce our environmental footprint through innovative technologies and circular economy practices. Ultimately these efforts fall in line with the Kingdom of Bahrain's vision to achieve its sustainable development goals of 2030."

Nicolas Blixell, Vice President and Head of Gulf Council Countries at Ericsson Middle East and Africa, says: "The results of our collaboration with Beyon highlight the role of technologies in achieving sustainability goals. By leveraging our expertise and technologies, we have been able to deliver measurable energy savings and support Beyon in their journey towards Net

Ericsson has a longstanding relationship with Beyon, through its telecom arm Batelco, with this sustainability collaboration marking another milestone in their efforts to enhance network efficiency and environmental performance across Beyon's operations.



The rise of AI in food technology: **Enhancing quality and safety**

Belal Khaled Al-Hafnawi, Technology and digital transformation leader, and Bayan Rihawi, ISO expert, Master degree in food science and technology

The food industry is rapidly evolving, driven by advancements in technology and increasing consumer demands for highquality, safe, and sustainable products. In this era of digital transformation, artificial intelligence (AI) is emerging as a gamechanger, offering innovative solutions to enhance food production processes and optimize product quality.

One of the most promising applications of AI in the food industry is the use of computer vision technology. By integrating cameras, sensors, and advanced Al algorithms, food manufacturers can achieve real-time inspection and quality control on production lines.

Enhancing Quality Control with Computer

Computer vision systems can analyze key characteristics of food products, such as size, shape, color, and texture, to identify defects or classify products with exceptional accuracy. This technology enables automated sorting and rejection of items that do not meet predefined quality standards, ensuring consistency and reducing waste.

For instance, in the baking industry, a vision system equipped with thermal imaging or color analysis can monitor the surface of baked goods to assess browning levels and texture. By automatically identifying items that are over- or under-baked, the system ensures consistent quality and appearance.

Ensuring Food Safety and Traceability

Computer vision also plays a crucial role in ensuring food safety. Advanced imaging

sensors, such as hyperspectral or X-ray imaging, can detect foreign objects in food products by analyzing their size, shape, density, and material composition. The system flags or removes contaminated items in real-time, preventing them from reaching consumers.

Moreover, computer vision can inspect labels to ensure that text, barcodes, and positioning are correct and readable. Optical Character Recognition (OCR) software verifies printed information like expiration dates, reducing the risk of mislabeled products reaching consumers. This capability minimizes recall risks, regulatory penalties, and potential harm to consumers.

Sustainable Food Production for the

A recent review published in the European Chemical Bulletin highlights the growing use of AI and computer vision in agricultural technology, underscoring their potential to contribute to sustainable food production practices. The review examines how technologies from the Fourth Industrial Revolution (4IR) are transforming the food industry, with a focus on environmentally responsible innovations that support meeting the food supply demands anticipated by 2050.

The Steam Peeling Process: A Closer Look

One notable application of computer vision in food processing is the steam peeling process. This technique utilizes machines that apply short bursts of highpressure steam to heat the skin of produce, causing it to blister and separate. After



steam treatment, the loosened skin is easily removed, minimizing flesh loss and reducing waste compared to traditional

Advanced steam peelers equipped with computer vision technology gather data over time, enabling operators to adjust settings for various produce batches and gain insights into operational efficiency. Vision inspection systems that evaluate color, shape, and texture leverage advanced imaging technologies, such as cameras and sensors, to ensure product quality.

These systems capture and analyze color using RGB or HSB values, assess shape by measuring size, symmetry, and contours, and inspect texture by evaluating surface characteristics like roughness or smoothness. Commonly used in food production and pharmaceutical industries, they provide real-time quality control by identifying defects and ensuring products meet predefined specifications.

Conclusion

As the food industry continues to embrace digital transformation, Al-powered solutions like computer vision are becoming indispensable for enhancing product quality, safety, and sustainability. By automating inspection processes, reducing waste, and ensuring traceability, AI is revolutionizing the way food is produced and processed. As technology continues to evolve, we can expect even more innovative applications of AI in the food industry, paving the way for a future of smart manufacturing and sustainable food production practices.

The role of private wireless networks in driving sustainability and worker safety in industry

Mahmoud-El Bana, IMEA Head of Enterprise Campus Edge Sales at Nokia



Industries worldwide urgently need to balance productivity with sustainability and safety. In sectors like mining, manufacturing, and logistics, high energy consumption and worker safety risks are critical challenges. To address these, advanced digital connectivity solutions, such as private wireless networks and industrial edge for real-time data processing, are essential for facilitating Industry 4.0 and fostering long-term sustainability.

The Untapped Potential of Digital Transformation

Industrial operations, often viewed as heavy polluters, hold significant potential for positive change through digital

transformation. By leveraging advanced connectivity and real-time data analytics, industries can reduce emissions, improve safety, and enhance efficiency. For example, deploying remote machine controls and digital twins can help minimize resource wastage, energy consumption, and operational downtime, while also keeping workers out of harm's way.

Private wireless networks, especially those based on 4.9G and 5G, offer highperformance, low-latency connectivity that supports Industry 4.0 applications like drone inspections and real-time environmental monitoring. Autonomous mining trucks, for example, have demonstrated fuel savings and reduced wear and tear, further contributing to sustainability. These

improvements are not only environmentally beneficial but also bolster profitability through reduced energy and maintenance costs. By enabling these and other innovative use cases, enterprises benefit from real-time situational awareness and proactive problem-solving, significantly improving operational safety and environmental outcomes. Unlike traditional Wi-Fi, private wireless networks provide broader, more reliable coverage, reducing the number of access points needed and thus further decreasing energy use.

Measuring Impact: The Sustainability Calculator

Quantifying sustainability benefits is essential for industrial leaders aiming to



align with ESG goals. The Nokia Private Wireless Sustainability Calculator, helps enterprises measure the environmental, social and societal benefits of deploying private wireless solutions and new Industry 4.0 applications, such as critical worker communication and environmental monitoring. Based on data from multiple sources, including reputable external data sources, previous project quantifications and network models, the tool provides an estimate for decisionmakers to evaluate the positive impact on Greenhouse Gas emissions, worker safety, and operational efficiencies, and provides them with a clear digitalization path to optimize operations

Findings from a GlobalData report highlight that deploying private wireless networks can lead to a 10% or greater reduction in emissions for industries, and the Private Wireless Sustainability Calculator shows that some enterprises can achieve up to 25% reductions.

Enhancing Worker Safety

Safety remains a priority across industrial

environments. Industry 4.0 applications powered by private wireless networks and industrial edge enable remote machine control and predictive maintenance, whilst increased situational awareness reduces the exposure of workers to hazardous conditions through highly accurate tracking and positioning technologies, intelligent IoT sensor data, real-time alerts and navigational assistance. Notably, the Private Wireless Sustainability Calculator indicates that companies adopting these technologies could reduce safety incidents by up to 35%, illustrating the dual benefits of protecting employees and minimizing associated costs.

Private wireless and edge technologies provide enterprises with robust data collection and analysis capabilities. By using real-time insights to extend machine lifetime and minimize downtime, industries can reduce material waste and energy consumption while enhancing worker safety. Critical worker communication helps not only to improve collaboration, fuel and energy consumption for on-theground workers, but biometric wearables also ensure real-time health monitoring

and emergency dispatch. Drones equipped with sensors for inspections in dangerous or hard-to-reach areas further exemplify how private wireless improves safety and reduces emissions.

The Path to Sustainable Growth

Sustainability and digital transformation are intertwined pathways for long-term industrial growth. By integrating private wireless networks and industrial edge, industries gain the technological foundation to drive ESG initiatives, stay competitive, and ensure safer, more efficient operations. This foundation supports new Industry 4.0 use cases, such as digital twins and predictive analytics, essential for achieving future sustainability targets.

The future of industrial sustainability hinges on embracing digital solutions. Industry leaders should consider adopting private wireless networks and tools like the Sustainability Calculator to advance their ESG goals. Doing so will not only safeguard environmental integrity but also position enterprises for sustained profitability and global competitiveness.

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Ashraf Shaukat Founder and Chairman of AYRUS

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Pakistan to increase fiberization, aims to launch 5G in 2025

PTA in collaboration with Huawei organize National Broadband Network Forum 2024

Huawei and the Pakistan Telecommunication Authority (PTA) jointly organized the National Broadband Network Forum 2024 under the theme "Gigabit for

The event was addressed by Chairman Senate Yousaf Raza Gillani, Minister for State for Information Technology and Telecommunication Shaza Fatima and Chairman PTA Major General (R) Hafeez-ur Rehman.

The chairman Senate commended PTA's role in enhancing broadband penetration, noting a milestone of 59% but stressing the need to address the remaining gaps.

He also expressed appreciation for Huawei Pakistan's commitment for ICT sector enablement over the past many years, "Huawei, has been a major partner in the digital transformation of Pakistan, and we are looking forward to working closely together to further enable the industry in the fields of AI, Cloud and Big Data."

Minister of State for IT, Shaza Fatima Khawaja assured the government's continued support to the telecom sector in bridging the digital divide. Chairman PTA highlighted the importance of collaboration and innovation in achieving universal connectivity. Secretary MoIT pledged sustained efforts toward building a digitally inclusive Pakistan.

Aamir Ibrahim, CEO Jazz said, "We applaud PTA's leadership in fostering collaboration and driving initiatives like the National Broadband Network Forum, which are instrumental in shaping Pakistan's digital future. With a broadband penetration milestone of 59%, it is clear that strategic partnerships—such as those with PTA and technology leaders like Huawei—are vital in advancing internet accessibility, Al-driven innovation, and broadband







infrastructure. At Jazz, we remain steadfast in our commitment to working alongside PTA and other stakeholders to ensure that digital transformation empowers growth, inclusion, and progress for all Pakistanis."

Huawei's CEO reaffirmed the commitment to providing cutting-edge broadband solutions, furthering Pakistan's digital transformation. CEO Jazz and NERA PTA's 5G consultants also shared their dedication to enhancing broadband infrastructure across the country.

The event underscored the collective commitment to advancing Pakistan's broadband infrastructure and fostering a smart, connected future. The NBN Forum 2024 is the second in a series of international forums hosted by PTA, focusing on increasing broadband penetration in Pakistan.



Huawei and COMSATS University Islamabad to develop technical vocational training labs



Huawei Technologies Pakistan and COMSATS University Islamabad have officially signed a Memorandum of Understanding (MoU) aimed at fostering collaboration in the fields of technology.

The agreement was signed during a ceremony held at the office of Huawei Technologies in Islamabad. The event was graced by the Federal Minister of Science and Technology, Dr. Khalid Maqbool Siddiqui as the Chief Guest and was attended by key representatives from both organizations.

This partnership is set to enhance technical vocational training and skill development to create employment opportunities for students and young technicians by equipping them on the latest ICT technologies.

Under the MoU, Huawei will provide COMSATS University Islamabad with equipment and train their resources in delivering the technical training to the attendees of these courses. Initially, this program will commence with the COMSATS University Islamabad, Lahore campus. Subsequently COMSATS University Islamabad will also help develop a similar facility in Karachi as well. This collaboration is designed to equip students with the necessary skills to thrive in a rapidly evolving digital landscape.

Dr. Tahir Naeem, Director (P, D & HRD) at COMSATS University Islamabad, expressed enthusiasm about the partnership: "This collaboration with Huawei represents a significant step forward in our mission to provide students with a comprehensive education in technology and innovation. We are excited to work together to develop programs that will enhance learning and research capabilities."

Ahmed Bilal Masud, Director Subsidiary Board at Huawei, emphasized the importance of such collaborations: "At Huawei, we believe in the power of partnerships to drive innovation. By working with COMSATS University Islamabad, we aim to nurture talent and inspire the next generation of leaders in technology."

The MoU will also pave the way for further collaboration between both organizations, including knowledge exchange and fostering an environment of innovation that benefits both stitutions and the wider community.

Keeta Drone obtains commercial license from Dubai Civil Aviation Authority

Keeta Drone has received the UAE's first commercial license for Beyond Visual Line of Sight (BVLOS) drone deliveries from Dubai Civil Aviation Authority (DCAA). This milestone positions Keeta Drone as the first Chinese drone logistics operator to secure an overseas license, marking a significant leap in its global expansion.

His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai, Deputy Prime Minister and Minister of Defence of the UAE, and Chairman of the Board of Trustees of the Dubai Future Foundation (DFF), today launched the Keeta Drone delivery service, the first-of-its-kind in the Middle East, at Dubai Silicon Oasis (DSO).

Keeta Drone unveiled four operational drone delivery routes at DSO, serving key locations such as Rochester Institute of Technology (RIT-Dubai) and Dubai Digital Park. These routes will facilitate fast and efficient delivery of food, medicine, and other essential items. This marks the company's first major international venture, leveraging its advanced autonomous drones to deliver seamless logistics solutions.

His Highness placed the first order using the Keeta Drone delivery system through the platform from RIT-Dubai, one of the landing points within DSO's drone delivery network. The order was successfully delivered from one of the take-off points in the community.

H.H. Sheikh Hamdan bin Mohammed reaffirmed Dubai's commitment to developing advanced infrastructure and fostering an innovative environment to enhance smart logistics and cutting-edge air transport solutions, aligned with the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to establish Dubai as a leader among future-ready cities.



His Highness said: "We continue to support projects that drive a diversified, flexible digital economy by leveraging advanced technology in Dubai and empowering the aviation and air transport sectors. Our strategy places a high priority on strengthening public-private partnerships to catalyse research and development (R&D), sustainable growth, and smart mobility. This aligns with the Dubai Economic Agenda D₃₃, which aims to position Dubai among the world's top three urban economies."

Safe, reliable, and efficient logistics solutions tailored for urban environments

Keeta Drone's M-Drone Gen 3, a six-rotor drone with a maximum load capacity of 2.3kg, is at the forefront of DSO's drone delivery network. Combined with a proprietary intelligent dispatch system and automated ground infrastructure, the drones provide safe, reliable, and efficient logistics solutions tailored for urban environments.

Dr. Yinian Mao, Vice President of Meituan and President of Keeta Drone, remarked: "The UAE's progressive policies and robust support for technological innovation have played a pivotal role in enabling our operations here. Dubai's high demand for on-demand delivery services and the operational challenges posed by its extreme weather underscore the potential for drone delivery to enhance efficiency and reliability. We are confident that Keeta Drone's services will redefine urban logistics, improving both customer experiences and industry resilience."

New Wireless Broadband Alliance report drives seamless Wi-Fi and private 5G inter-working for high-speed, low latency private enterprise networks

The Wireless Broadband Alliance (WBA) has announced the release of "Private 5G and Wi-Fi Convergence Report: Phase 2 - Technical Considerations". This report builds on the phase 1 report – which highlighted key use cases and the crucial role Wi-Fi infrastructure plays in optimizing 5G performance – to now present advanced architectural strategies and technical solutions for seamless interworking between the two technologies.

Since 2017, WBA has led efforts to demonstrate the benefits of converged licensed and unlicensed wireless technologies, focusing on integrating 5G and Wi-Fi. While private 5G and Wi-Fi have aligned technically and complement each other, their distinct characteristics make them suitable for different use cases and market needs. Technological advances like WBA OpenRoaming™ and enhanced Quality of Service (QoS) in Wi-Fi have further bridged performance gaps, allowing for coexistence that reduces operational costs, simplifies management, and improves user experience across diverse environments.

This report outlines the next phase of integration, including architectural considerations, providing a comprehensive roadmap for enterprises seeking to leverage both networks to maximize performance, efficiency, and cost savings. This convergence will allow enterprises to utilize the high-speed, low-latency benefits of 5G alongside the broad coverage and flexibility offered by Wi-Fi, tailored to different use cases and industry demands.

Architectural and technical proposals for convergence

Notable proposals include using RADIUSbased AAA infrastructure for 5G device authentication, enabling network operators to unify identity management and policy enforcement across both Wi-Fi and Private 5G. This integration allows for a singular policy to be enforced on all sessions from a given device,

whether connected via Wi-Fi or 5G, simplifying network management and improving user experience. The report is a comprehensive exploration crafted by experts from leading tech companies including Broadcom, Cisco, Nokia, Aruba (an HPE Company), Boldyn Networks, Intel, and many others within the WBA.

Additional proposals include:

- · Wi-Fi Fast Transition Domain to include Private 5G – A standardized approach for bootstrapping keys on Wi-Fi access based on the key material generated from the 5G access authentication. This helps in reducing number of messages exchanged during the initial attach. Proposed is a method and technique for leveraging session keys generated in 3GPP access (5G/LTE) and leveraging 802.11r capability of Wi-Fi infrastructure to derive the Fast Roaming (FT) Keys, as the user moves from private 3GPP access to Wi-Fi access. This approach results in a drastic reduction of connection establishment time to Wi-Fi access, upwards of 90%.
- · Indication of Identical Services on another Radio Access Technology (RAT) - The network will maintain a mapping of Service Name/ Network Identifier in one access, with the corresponding identifiers in the other access. Both the Wi-Fi and Private 5G access networks will have awareness of these service mappings.
- ·IP Address Preservations and Seamless Mobility - Enabling a multi-access capable piece of user equipment (UE) to attach to both Wi-Fi and Private 5G access networks and have distinct IP address configuration on an access basis. Application-binding to the access is based on the UE policy.

The report explores several other technical solutions, such as Service Functions, which are extensively deployed in most networks providing features such as security, WAN acceleration, and server load balancing. It also covers how a device connectivity status can

be shared across networks for optimizations, and how latency can be improved by moving user place traffic in Wi-Fi and Private 5G access networks.

Tiago Rodrigues, CEO of the Wireless

Broadband Alliance, said: "The convergence and coexistence of Wi-Fi and Private 5G play an important role in shaping the future of wireless networking. It will not only help establish the standards needed to ensure its technical success for operators, network owners, enterprises and users, but provide clear advice on the architectural considerations for such converged implementations. In many environments, the coexistence of Wi-Fi and Private 5G is essential, and there is significant value in realizing synergies between these two technologies to increase competitiveness and reduce operational costs by the elimination of redundant functions, simplifying management, and greatly improving end-user experiences."

Developing new convergence standards in

A new phase will begin in 2025, focused on developing new industry standards, including RAT Roaming, Access Traffic Steering (ATSSS), and Quality of Experience (QoE) metrics. This convergence strategy will set new benchmarks for network interoperability, security, and user-centric services, enabling enterprises to harness the strengths of both 5G's speed and reliability and Wi-Fi's coverage and flexibility.

Matt MacPherson, Wireless CTO at Cisco, added: "Wi-Fi meets the demands of most enterprise customers. However, the convergence of Wi-Fi and Private 5G elevates capabilities by offering policy-based segmentation aligned with business needs. By combining Wi-Fi and Private 5G with a unified policy, enterprises gain control. Cisco is excited to collaborate on this pioneering report, which provides the architectural and technical guidance enterprises need to leverage the combined strengths of both networks."

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