IBC 2024: Shifting Business Models, Transformative Tech and People & Purpose

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The Future of Geostationary Satellites

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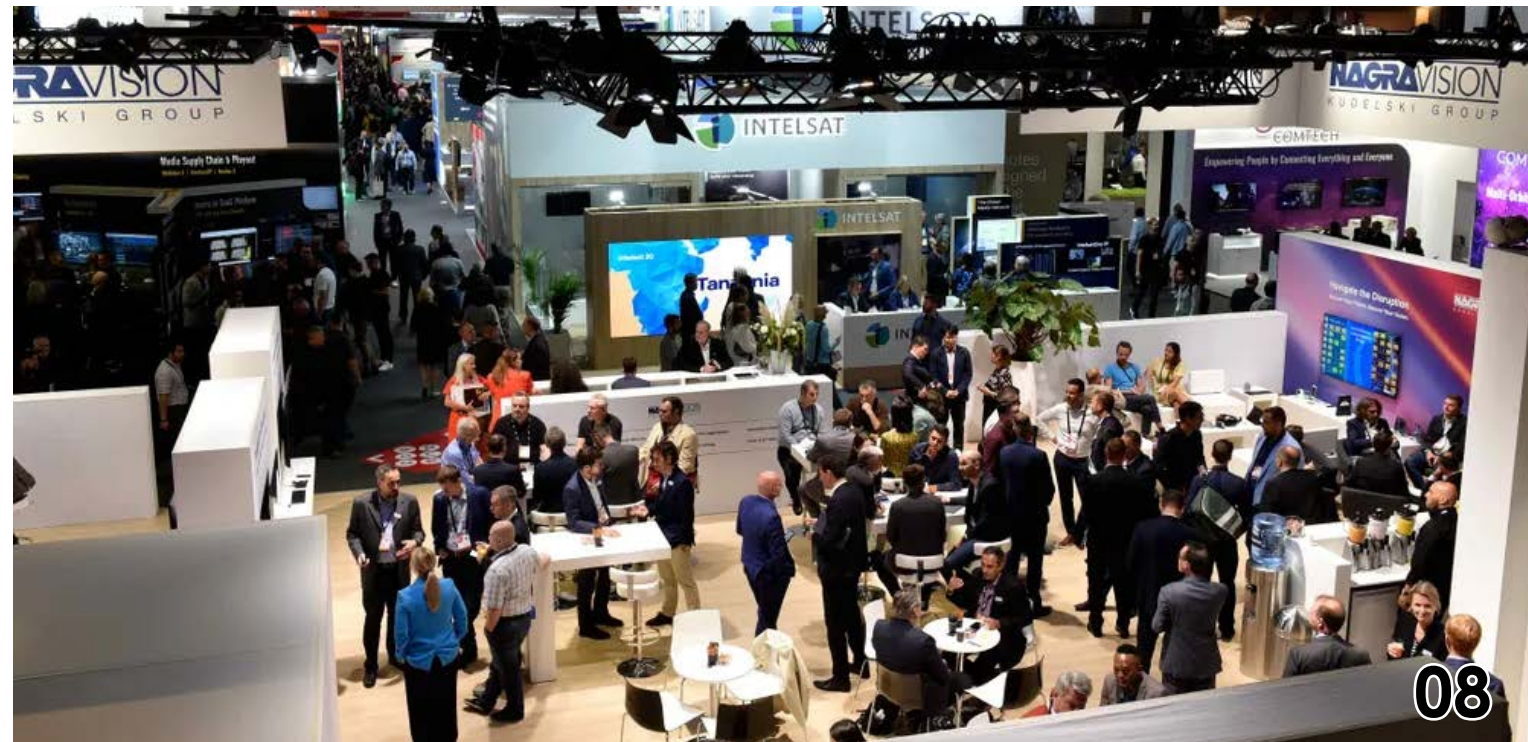# ADVANCING INTERNATIONAL COOPERATION IN SPACE

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Editor's Note

Dear Readers,

We are excited to bring you the September 2024 issue of Teletimes International, where we continue to explore the ever-evolving landscape of telecommunications and technology.

With IBC 2024 just around the corner, we provide a sneak peek into the groundbreaking technologies and discussions that will dominate this year's conference in Amsterdam. From AI innovations to the latest in broadcasting and streaming, this event promises to be a landmark in the industry calendar. Teletimes is a Media Partner to IBC once again and I will be attending the event in Amsterdam along with our editorial team.

In this issue, we delve into several key areas that are shaping the future of telecommunications:

Digital Transformation: Learn how Saudi Arabia is rapidly advancing towards a hyper-resilient digital infrastructure, setting new benchmarks in cybersecurity and digital trust. We also explore the strides being made in Iraq, where Huawei is at the forefront of accelerating the nation's digital transformation.

Satellite Communications: Our satellite communications section features the importance of multi-topology SCPC modems, innovations in dynamic satellite bandwidth optimization for fleets, and updates on significant partnerships like the one between Thaicom and Hughes Communications India.

AI in Telecom: Discover how AI is transforming telecom operations, optimizing transactions, enhancing customer engagement, and reducing operational costs. This issue includes a comprehensive analysis by experts from Arthur D. Little on how AI is revolutionizing commercial models in the telecom sector.

Industry Collaborations: The issue also highlights significant collaborations, such as the partnership between Kawar Energy and Huawei to boost Jordan's EV infrastructure, and the joint efforts in developing a resilient communication network for the U.S. Navy by Hughes and Boost Mobile.

As always, we strive to bring you the most relevant and up-to-date information in the world of telecommunications.
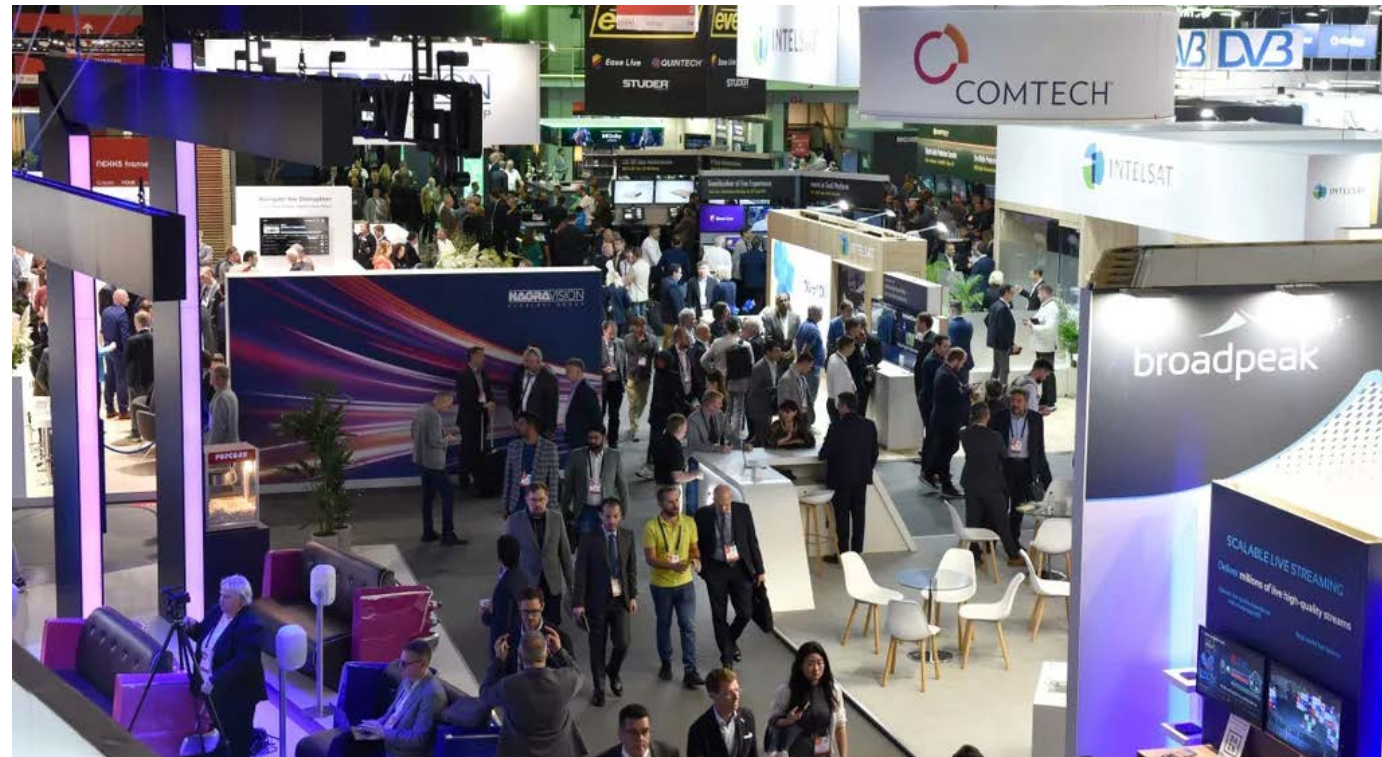
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Khalid Athar
Chief Editor

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IBC 2024

Shifting Business Models, Transformative Tech and People & Purpose

IBC2024 has unveiled a world-class mix of cutting-edge keynotes, presentations, panels, and other sessions at this year's IBC Conference, which shifts to a new location within the RAI Amsterdam when it runs from 13-15 September. The Conference offers delegates exclusive access to insightful, inspirational, and entertaining content from a diverse array of thought leaders from across the global media, entertainment and technology industry.

"The specific topics that our visionary line-up of speakers are addressing range from AI and human-machine collaboration to FAST and its impact on monetisation to the fight against fake news and disinformation – plus other disruptive trends that present both new challenges and opportunities," says Sally Watts, Head of Content for IBC. "In addition, the move to a new part of the

RAI reflects the fact that the Conference continues to evolve while adding new and exclusive elements that elevate delegates' IBC experience."

Scaling up to three days in 2024 from two last year, the IBC Conference is moving to the Auditorium Complex at the RAI with two theatres and a large, self-contained Delegate Lounge open to all attendees for breaks, happy hours, roundtables and other exclusive events. The Lounge will exclusively offer all delegates complimentary refreshments, dedicated WiFi, a concierge service and semi-private meeting rooms to work, make calls or have quiet chat away from the bustle of the exhibition floor. The Conference will also play host to the IBC Innovation Awards on 15 September.

The Conference kicks off on 12 September

with an IBC Welcome Party, to which all delegates are invited, on the 23rd floor of the nearby nhow Amsterdam RAI hotel. Event guests can enjoy breathtaking views of the city as they spend the evening networking with fellow attendees and speakers over drinks and canapes ahead of IBC2024 opening the following day.

The Conference itself will focus on some of the critical trends and technologies redefining the media landscape, beginning with Benedict Evans, the internationally renowned media and technology analyst who has worked with Orange, Channel 4 and NBC Universal, giving a keynote entitled 'Navigating a changing media landscape: AI and everything else'. Evans will explore how disruption has become the new normal in the media and entertainment (M&E) ecosystem,

'Building a future ready tech stack for an evolving media landscape'; and Phil Wiser, Executive Vice President and Global Chief Technology Officer at Paramount Global, looking at the winners and losers in the changing broadcast and streaming landscape and what business models will drive long-term monetisation in 'From ideas to impact: Blending technology, creativity and business'. There is also a joint keynote fireside chat entitled 'At the intersection of AI and creativity: Why the future lies in human-machine collaboration' with Sachin Dev Duggal, Founder and Chief Wizard at Builder.ai and Andy Hood, Vice President of Emerging Technologies at WPP. Both sessions will be chaired by Jeremy White, Senior Innovation Editor at WIRED.

Another Day 2 session that promises to be a big Conference draw is 'Olympics 2024: Technology to broadcast beyond expectations', featuring Israel Esteban, Chief Technology Officer at beIN Media Group and James Miles, Senior Director of Live Event Workflows at NBC Sports, discussing the tech used, lessons learned, and what that means for the future of sports broadcasting. The following day, another session on 'Gen AI in Paris 2024 Olympics: New analytics to reach new audiences' features Chris Jackson, Global Head of Digital Data and Analytics, Olympic Channel, discussing the real-time data challenges his group faces and how AI can help.

looking at how immersive technologies, AI, new connectivity, personalised content experiences, and other developments are reshaping M&E.

This opening session will be immediately followed by a series of short fireside chats looking at tech innovation in digital media and broadcast, featuring:

• Grace Boswood, Technology Director at Channel 4

• Cristina Gomila, Managing Director of

Content Technology & Innovation at Sky

• Sinead Greenaway, Director of Broadcast and End User Technology at the BBC.

These sessions culminate in a panel featuring all three women, entitled 'Building the future of tech'.

The second day of the Conference features keynotes offering CTO Perspectives. These two sessions include: Girish Bajaj, Vice President of Prime Video & Amazon MGM Studios Technology, speaking on

Other headline speakers at the 2024 IBC Conference include:

• Chem Assayag, Senior Vice President of Home Services Innovation at Orange

• Kerry Ball, Chief Commercial & Strategy Officer at BritBox International

• David Bouchier, Chief TV and Entertainment Officer at Virgin Media O2

• Laura Florence, Senior Vice President Global FAST Channels at Fremantle

• Kasia Jablonska, Director of Digital and

On-Demand at BBC Studios

• Manish Karla, Chief Business Officer at Zee5

• David Salmon, Executive Vice President and Managing Director of International at Tubi

• Jonathan Thompson, Chief Executive Officer at Everyone TV

• Joshua Tidsbury, Senior Manager of Technology Evangelism, Worldwide Developer Relations, at Apple

The Conference also offers delegates exclusive access to presentations on the IBC Technical Papers, which showcase world-renowned, peer-reviewed original research delving into solutions to real-world industry challenges. This year's programme, running throughout the Conference, includes papers on:

• Sustainability – energy efficiency, spanning devices to delivery systems

• AI in Production – training and targeting

• Audio & Speech – advances in production

• Provenance – what can we trust?

• Streaming – the view from each end

• XR – advances in capturing, rendering, and delivering

• Advances in Video Coding – encoder optimisations and film grain

• 5G Case Studies – public network slicing trials and striving for low latency

• 5G Technology – convergence with broadcast

The Conference will also feature in the Delegate Lounge a roundtable session with Maria Rua Aguete, Senior Research Director at OMDIA, presenting findings on current media and entertainment themes and trends, including the impact of AI, evolving

business models, changing consumer viewing habits, the influence of smart TVs, and other M&E developments.

AI Tech Zone

IBC2024 has unveiled a host of exciting new show features and speaking sessions to showcase real-world artificial intelligence (AI) advances across the IBC Conference, the IBC Accelerator Media Innovation Programme and the show itself, including the new AI Tech Zone, powered by EBU. AI innovators and media and entertainment (M&E) companies will be able to learn, network, collaborate and

unlock business opportunities driven by new AI use cases throughout the event.

"The media industry is ready to look beyond the AI hype and focus on real-world applications that deliver tangible benefits for businesses and consumers," said Mike Crimp, IBC CEO."IBC2024 will showcase an array of hands-on demos and use-case driven discussions — reflecting M&E's demand for grounded conversation on how AI is impacting our sector today and in the long term."

"AI spend in media is set to reach $13 billion

by 2028. It is influencing every element of the content value chain but businesses need more clarity around where and how it can be harnessed most effectively," said Maria Rua Aguete, Omdia's Senior Research Director, Media and Entertainment. "Spotlighting high-impact use cases and collaborating to overcome adoption challenges will be key to unlocking AI's transformative potential for the media industry."

The new AI Tech Zone, brings together emerging AI providers, established producers, content creators and innovators looking past the tried and true to re-imagine media creation and operations from the ground up. The zone will be presented by headline sponsor AWS and partner, NVIDIA, fueling hands-on AI demonstrations. Dell Technologies has been announced as platinum sponsor with partner, NVIDIA. The AI Tech Zone Stage will be sponsored by Wasabi Technologies, while the AI networking zone – sponsored by DOT Group and IBM – will empower the IBC community to engage directly with some of the most innovative players pioneering AI for M&E.

Hans Hoffman, Head of Media Fundamentals and Production at the EBU, says: "The AI Tech Zone is a must-attend for show attendees. We are now moving

on from 'future potential' discussions to seeing how practical AI applications in the workflow can enable public service operators, broadcasters and other media organisations to generate real value. Visitors to the AI Tech Zone will witness firsthand how AI is shaping a smarter, more efficient media world."

An array of sessions on the AI Tech Zone Stage will spotlight groundbreaking AI advances across areas including content authenticity, intelligent media storage, accessibility, mixed reality and creativity in production while sharing critical insight into regulation and policy developments. AI thought-leaders taking to the stage include zone sponsors and representatives from AI Caramba!, BBC Studios, Eluvio, EPFL, Fraunhofer, IBM Aspera, Ina, KBS, Liverpool Football Club, PacGenesis, RTVE, Univeristy of Seoul, VIDEO.TAXI, and YLE News Lab.

Alongside sponsors, AI Tech Zone exhibitors will showcase pioneering AI technologies ranging from automated video editing and music-audio separation to advanced data analytics and business optimization to content provenance tracking and fast and secure cloud storage. Exhibiting companies include AI4ME, AudioShake, Blu Digital Group, Brai, CheckSub, Deepdub, Eleven

Labs, Eluvio, EU Project X Reco, Globant, HP (Z by HP), Imaginaro.ai, ITTIAM, Magnifi, Media Monks, MobiusLabs, PacGenesis, Scenery, Schweizer Radio und Fernsehen, Seagate Technology, Tabsons, The Weather Company, V-Nova, Vera.AI, Video.Taxi, Videolinq.ai, VionLabs, and Zaibr.

AI-focused sessions and thought-leaders will feature across all show floor theatres and at the IBC Conference, where AI will be one of the primary themes explored — with keynotes from industry visionaries charting the evolution of AI in media and presenting new strategies to harness AI for creative workflows. The conference will also spotlight a number of AI in Action case studies, unveiling how generative AI and new data frameworks are already transforming live sports fan experiences and enhancing business operations for major broadcasters including ITV, Olympic Channel, and Sky.

Meanwhile, a number of companies across other exhibition halls will showcase new AI product launches and technologies for the first time at IBC2024, including Ateliere Creative Technologies, Backlight, Cinegy, Evergent, farmerswife, HAND, IMAX, InSync, ioMoVo, Media Excel, MediaKind, nxtedition, Operative, Periphery, Pixotope,

Profuz Digital, Telestream, Telos Alliance, and Vubiquity.

Another IBC-first is the introduction of the AI Media Production Lab within the IBC Accelerator Media Innovation Programme, exploring a series of specific AI concepts to improve creativity in storytelling, deepen non-bias audience feedback and engagement, and power real-time predictive analytics to personalise live sports viewing. The three project strands, 'Generative AI in Action', 'AI Audience Validation Assistant' (AAVA), and 'Changing the Game: Predictive Generative AI' are being driven by Champions including Al Jazeera, BNNVARA, Channel 4, EBU, Evangelische Omroep (EO), IET, ITV, Paramount Global, Rai, Verizon Business, Vodafone, World Freestyle Football Association, Yle, and Zwart. Technology participants include Magnifi, Plan 9 Labs, Pluxbox, Respeecher, RKG Creative, Somersault, and Xansr Media.

Each project strand will be showcased with proof-of-concept demonstrations in Hall 3 at the Accelerator Zone and on the Innovation Stage.

IBC Innovation Awards finalists

IBC has announced the finalists for this year's IBC Innovation Awards. The IBC Innovation Awards celebrate and honour collaborative initiatives leading to ground-breaking solutions that address real-world media, entertainment and technology industry challenges. This year's awards bring together under one roof IBC's innovation and social impact awards to create a unified celebration of industry advances, with five categories now being judged: Content Creation, Content Distribution, Content Everywhere, Social Impact, and Environment & Sustainability.

In a year dominated by big sporting events such as the Summer Olympic Games and the UEFA European Football Championship, this year's awards finalists reflect the power of sports as a driver of innovation, with

at least one entry in this area shortlisted in four of the five categories. Overall, the broad array of entries from every corner of the globe underlines the truly international nature of IBC.

"This year's entries once again showcased the global reach and appeal of the IBC Innovation Awards with projects of the highest quality received from six continents," said Fergal Ringrose, Chair of the 2024 IBC Innovation Awards Jury. "Meanwhile, constantly evolving delivery methods and audience consumption patterns demand that content producers around the globe must innovate dynamically in order to stay relevant and competitive in the modern media and entertainment technology ecosystem. I would like to sincerely thank our panel of judges for their diligence and ability to adapt, as we brought our three Content categories together with Environment & Sustainability and Social Impact this year for our new-look IBC Innovation Awards."

The 2024 awards will be announced in a ceremony hosted by presenter and former news anchor Sasha Qadri, taking place in the Auditorium Complex at the RAI on Sunday, 15 September.

This year's finalists in the Content Creation category include:

• The National Football League (US), ESPN, Disney/Pixar and Beyond Sports for creating the first fully animated, real-time NFL alternative broadcast set in the Toy Story universe.

• Olympic Broadcasting Services and partners for live broadcast production with more than 200 smartphones contributing video for the Paris 2024 Opening Ceremony and a sea-based 5G network for sailing competitions in Marseille.

• Aspire for working with Vislink and FocalPoint VR to develop a virtual reality over RF wireless solution for the inaugural season of Aspire's Abu Dhabi Autonomous Racing League (A2RL).

The organisations named as finalists in Content Distribution are:

• Claro for creating a new approach to pay TV in Brazil, integrating streaming channels and applications, delivering

entertainment to consumers with a complete pay TV offer.

• NBCUniversal Operations and Technology for its pioneering project to transform the way its TV channels are delivered to consumers worldwide.

• The National Hockey League (Canada and US) in partnership with Verizon, AWS, Zixi, Vizrt and Evertz, for producing a 5G and Edge compute framework for assembly, control and delivery of live broadcast.

The Content Everywhere finalists are:

• LaLiga for working with Play Anywhere and Ease Live to enable true fan interactivity for itself and its worldwide broadcast and streaming partners.

• Red Bull Media House for bringing together real-time GPS tracking, data management and advanced visualisation to transform viewing experience across live broadcast, web widgets and AR mobile app.

• Franceinfo (France Télévisions) for working with PimpMyCompany to aggregate text/audio/video/photo messages from various platforms and broadcasting them live on air.

The Social Impact finalists are:

• Disney Star, Star Sports for working with India Signing Hands to bring cricket to almost 67 million hard of hearing and 34 million visually impaired fans watching IPL 2024.

• CultureQ for a new technology platform developed by indigenous-owned tech company Kiwa Digital that enables indigenous peoples globally to revitalise their language and culture at scale, while retaining sovereignty.

• Sesame Workshop for its Watch Play Learn Distribution Hub which allows government agencies and aid organisations to preview and request videos for children in crisis settings.

The Environment & Sustainability finalists are:

• France Télévisions for reducing CO2 emissions by 300 tons via a pioneering 100% glass-to-glass cloud production and private 5G network.

• GreeningofStreaming for addressing growing industry concerns about the energy impact of the streaming sector, with international reach and over 30 member organisations.

• Anton/Bauer for Salt-E Dog which harnesses the power of sodium chemistry to enable sustainable television production practices.

The Innovation Awards ceremony will also feature the presentation of the IBC International Honour for Excellence, which goes to an individual or organisation that has made an outstanding impact in the industry, and the Best Technical Paper, with all papers being presented at the 2024 IBC Conference.

IBC also released for the first time earlier in the month longlists of the final 10 contenders for each category of the 2024 Innovation Awards, selected from the hundreds of entries that poured in from media organizations and their technology partners worldwide. ▪

Hughes and Boost Mobile demonstrate automated, multi-transport network management for resiliency at the tactical edge

Standalone 5G network with enterprise management and control ensure PACE planning for warfighter communications

Hughes Network Systems and Boost Mobile have successfully demonstrated optimized, multi-transport network management for the U.S. Navy. The demonstration, which took place earlier this year, tested remote network orchestration, wide area network (WAN) resiliency, and secure Radio Access Network (RAN) sharing between standalone Private 5G networks operating at the U.S. Navy Air Station, Whidbey Island, Washington, and a base in Hawaii.

Hughes collaborated with Boost Mobile, both of which are part of the EchoStar family of companies. Boost Mobile's innovative Open-RAN-based 5G networking technologies for US-wide public network deployment experience provided a rich heritage for the standalone, secure 5G networks on each base. In addition, Hughes implemented its intelligent network orchestration capabilities, Smart Network Edge (SNE) mission-planning technology, and Network Management System (NMS). Together, these technologies maintained communications in contested and

congested environments.

"The combined team successfully demonstrated a flexible and resilient mission network that dynamically switched communications paths to ensure uninterrupted situational awareness," said Dr. Rajeev Gopal, Vice President of Advanced Programs for the Defense Division at Hughes. "We are ready to implement smart network orchestration and secure Private 5G networks, for the U.S. Department of Defense to ensure that users have critical command and control information when they need it most, even in disrupted, occasionally disconnected, and low-bandwidth conditions."

The network supported Automated Primary Alternate Contingency Emergency (PACE) planning, leveraging the powerful Hughes NMS and SNE technologies that dynamically utilize multiple transport paths to deliver situational awareness. These advanced automation techniques optimize capacity, QoS, and various time/

space-based resource commitments to speed up changes and access to SATCOM resources. With command-in-the-loop, the Hughes technology can process new service requests in less than 5 seconds to accommodate new threats in the theatre and automatically distribute information across paths orchestrated by Hughes SNE. The NMS and SNE are critical enablers for state-of-the-art resilient communications utilizing multiple diverse transports, including GEO, MEO, LEO, and 5G systems.

The demonstration confirmed that the EchoStar Private 5G ORAN network can maintain secure connectivity for devices and applications when users travel outside the naval base. This capability supports a concept of operations where a device running on the Whidbey Island NAS 5G network can travel to another location and still securely access applications that reside at Whidbey Island. The Navy can use this secure internet access for missions requiring a user to relocate from one base to another. ∎

The Future of Geostationary Satellites

A New Era of Innovation and Adaptation

Gulraiz Khalid

Geostationary (GEO) satellites, which have traditionally dominated satellite communications, are undergoing significant transformations in response to evolving market demands and technological innovations. The emergence of smaller, more flexible satellites, advancements in software-defined technologies, and the need for multi-orbit architectures are reshaping the future of GEO satellites. Despite the rise of alternative constellations in low Earth orbit (LEO) and medium Earth orbit (MEO), GEO satellites continue to play a crucial role in global communications and connectivity.

1. Smaller and More Cost-Effective GEO Satellites

Historically, GEO satellites were large, bespoke systems designed to last for 15 to 20 years. These satellites could weigh thousands of kilograms and cost hundreds of millions of dollars to design, launch, and operate. However, a shift towards smaller, more cost-effective satellites is redefining the market. Swisst012, for instance, has introduced the HummingSat, a GEO satellite that is up to ten times smaller and less expensive than traditional models. This innovation has opened up new opportunities for smaller countries, regional operators, and commercial entities that previously could not afford the significant investment required for a GEO satellite.

An example of the adoption of these smaller satellites can be seen in Intelsat's Intelsat-45, which Swisst012 is building. This satellite is aimed at servicing media and network customers without the high costs associated with large satellites. By reducing the size and cost of these satellites, more operators are able to access GEO, allowing for the expansion of satellite-based communication services to regions that would otherwise remain underserved.

These smaller satellites are also addressing national security concerns. Larger GEO satellites have become attractive targets in potential space conflicts, and disaggregating these assets into smaller satellites enhances resilience against such threats. The US for example is apparently considering this approach as a risk management strategy for their space assets.

2. Software-Defined Satellites: Flexibility for a Changing Market

One of the most transformative innovations in the GEO satellite market is the rise of software-defined satellites. These satellites allow operators to adjust coverage, frequency, and bandwidth dynamically, based on real-time demand. This flexibility is crucial in a market where operators need to maximize the utility of their satellites over a long operational life, which can span decades.

A leading example of this technology is Airbus' OneSat, a fully reconfigurable GEO satellite. OneSat allows operators to change what the satellite does while it is in orbit, including adjusting its coverage and capacity to match changing business needs. This ability to reconfigure satellites in orbit significantly reduces market risk, as operators can adapt to shifts in customer demand or geographic coverage requirements.

This reconfigurability also aligns with the broader integration of GEO satellites into terrestrial networks, such as 5G and future 6G systems. For example, SES's O3b mPOWER system, although in MEO, highlights how GEO satellites could be leveraged to support high-throughput, low-latency applications across the globe, especially in remote or underserved regions. The flexibility of software-defined satellites positions GEO as an integral part of a broader, multi-orbit ecosystem that integrates both satellite and terrestrial connectivity.

3. Multi-Orbit Integration: Complementary Roles of GEO and LEO

While LEO satellites, such as those deployed by Starlink and OneWeb, have gained attention for their low-latency performance and global coverage, GEO satellites maintain a critical role in this new multi-orbit landscape. GEO satellites are particularly well-suited for handling non-latency-sensitive traffic, such as video streaming, which is a major application in satellite communications.

The future of satellite communications is expected to embrace a hybrid model where GEO, LEO, and MEO satellites work together to provide comprehensive coverage and services. LEO satellites, for example, excel in providing low-latency internet in remote areas, but their higher costs and more complex ground infrastructure requirements make them less suitable for high-volume, non-latency-sensitive applications. In contrast, GEO satellites can deliver high capacity over densely populated areas at lower costs, making them ideal for broadcasting and media services.

> **Cost-effective, smaller satellites have opened up new opportunities for smaller countries, regional operators, and commercial entities that previously could not afford the significant investment required for a GEO satellite**

A good example of this multi-orbit integration is Intelsat's partnership with OneWeb, which combines the strengths of both GEO and LEO to offer a global, seamless connectivity service. This partnership allows Intelsat to provide both high-speed, low-latency internet via LEO satellites and high-throughput services via GEO satellites, creating a versatile network that caters to various customer needs.

4. Challenges and Market Dynamics

Despite these advancements, the GEO satellite market faces significant challenges. The rise of LEO constellations, such as SpaceX's Starlink and Amazon's Project Kuiper, has created fierce competition, leading to a reduction in the number of GEO satellite orders in recent years. According to Euroconsult, orders for large GEO satellites have declined from the levels seen in previous decades, with manufacturers like Airbus and Thales Alenia Space competing for fewer contracts.

One of the primary drivers of this decline is the need for satellite operators to replace aging satellites that are nearing the end of their operational lives. While some operators are turning to life extension

> " *The future of satellite communications is expected to embrace a hybrid model where GEO, LEO, and MEO satellites work together to provide comprehensive coverage and services* "

services, which allow satellites to remain in orbit longer by refueling them, others are opting to invest in new, more advanced software-defined satellites that offer greater flexibility and efficiency.

The COVID-19 pandemic has also had a lasting impact on the GEO satellite market, disrupting supply chains and causing delays in satellite production and launches. For example, Maxar Technologies faced delays

in launching its Jupiter 3 satellite due to production issues, which pushed the launch date from 2021 to 2023. These challenges highlight the need for greater operational efficiencies and innovation within the GEO satellite manufacturing sector.

Conclusion

The future of geostationary satellites is poised to be one of transformation and adaptation. The rise of smaller, more cost-effective satellites, combined with the flexibility of software-defined technology, ensures that GEO satellites will continue to play a vital role in global communications. As the industry moves towards a multi-orbit future, where GEO, LEO, and MEO satellites work in tandem, GEO satellites will continue to serve essential functions in areas such as broadcasting, government communications, and high-demand regions.

Examples, such as Swissto12's HummingSat and Airbus' OneSat, demonstrate how GEO technology is evolving to meet new challenges, while partnerships like Intelsat and OneWeb showcase the potential of multi-orbit integration. Although the GEO market faces competition and operational challenges, these innovations ensure that GEO satellites remain a crucial part of the satellite communications ecosystem for years to come. ◼

> " *While some operators are turning to life extension services, which allow satellites to remain in orbit longer by refueling them, others are opting to invest in new, more advanced software-defined satellites that offer greater flexibility and efficiency* "

Eutelsat Group enters into exclusive negotiations for carve-out and partial sale of its passive ground segment infrastructure assets

Eutelsat Group has entered into exclusivity and signed a put option agreement with the EQT Infrastructure VI fund ("EQT") with respect to its passive ground infrastructure assets.

The contemplated transaction would consist in the carve-out of the passive assets (land, buildings, support infrastructure, antennas and connectivity circuits for the combined portfolio of teleports and SNPs) to form a new company which would be incorporated as a standalone legal entity. EQT will own 80% of the capital, while Eutelsat Group will remain committed as long-term shareholder, anchor tenant and partner of the new company with a 20% holding alongside EQT.

The new entity would be the world's largest pure-play, operator-neutral, ground station- as-a-service company, bringing together top-level teams combining satellite-specific knowledge with highly experienced infrastructure service operators for optimum customer service.

On completion of the transaction, Eutelsat would enter into a long-term framework master service agreement (MSA) covering services to be rendered by the new company to Eutelsat Group. The MSA would assure the seamless continuity of Eutelsat's activities at the same high level of efficiency, reliability and security.

The contemplated transaction values the new entity at an enterprise value of €790m, representing attractive EBITDA-Capex and EV/EBITDA multiples. It would shift future maintenance capex to the new entity, while the proceeds would enable Eutelsat to strengthen its financial profile and focus on the next generation of its multi orbit -fleet.

Eva Berneke, Chief Executive Officer of Eutelsat Group, said: "We are proud to become the first satellite operator to

Eva Berneke

embark on this innovative transaction which would allow us to build on the model adopted in other industries, and to optimise the value of our extensive ground network. In EQT we have found a partner of the highest quality, who shares our vision. This transaction would represent a win-win situation for all parties, and would enable Eutelsat to strengthen its financial profile, whilst continuing to rely on the unparalleled quality and reliability of its ground infrastructure. Moreover, we are confident that with the backing of EQT, the business would be in a position to fully embrace the

opportunities opening up to it as the new Global leader in this dynamic sector."

Carl Sjölund, Partner within the EQT Value-Add Infrastructure advisory team, said: "At EQT, we identified satellite ground stations as an attractive digital infrastructure vertical several years ago. They play an important role in ensuring global connectivity, especially for those not covered by fixed and mobile connectivity solutions and require deep global expertise in developing and operating telecommunications infrastructure businesses. We are delighted to partner with Eutelsat Group to create a ground station leader and capture the growth opportunity fuelled by technological innovation."

The transaction remains subject to customary conditions precedent, in particular the approval by the relevant regulatory authorities as well as consultation with French security authorities and the appropriate employee representative bodies. Closing of the deal is expected in the first quarter of calendar year 2026. ⊤

Thaicom and Hughes Communications India sign agreement for satellite capacity

Thaicom's subsidiary IPSTAR (India) has signed an agreement for satellite capacity with Hughes Communications India (HCI) for satellite capacity over India on Thaicom's satellite fleet.

Under the agreement, IPSTAR India will provide satellite capacity services to Hughes in India via Thaicom's satellite network. This will enable HCI to enhance its satellite broadband, mobile backhaul, maritime and satellite IoT services to meet the growing and varied demand for satellite services in India.

This strategic partnership represents a significant milestone in the development of satellite communications, boosting India-focused capacity for satellite broadband and related services. Thaicom remains committed to serving the satellite broadband demand for the Indian as the need arises, with additional capacity from its current and upcoming next-generation satellite fleet. It is now in the process of obtaining regulatory approval under the new space policy from the Indian government.

Shivaji Chatterjee, President & Managing Director of Hughes Communications India, said: "Our long-standing engagement with Thaicom has been very successful,

and we are excited to further enhance our collaboration through this agreement. This new capacity expansion will significantly boost broadband connectivity in India. Thaicom's satellite platform is a crucial component in advancing broadband satellite services throughout the country. We look forward to a continued, successful partnership with Thaicom."

Patompob (Nile) Suwansiri, Thaicom's CEO, commented: "We are very honored to sign this agreement with Hughes Communication India, the leading satellite

service provider in India, starting with the use of our existing powerful THAICOM 8 satellite with dedicated Indian coverage. Furthermore, Thaicom remains committed to continuously serve the Indian market into the future with new investments in the state-of-the-art next generation satellites. Thaicom has been providing the Indian market with satellite capacity since 1997 and combined with extensive experience and know-how of Hughes managed services platform, I have full confidence that we will be able to serve the insatiable demand for broadband services throughout India." **T**

FCC reauthorizes Globalstar's HIBLEO-4 constellation

The United States Federal Communications Commission ("FCC" or "the Commission") has issued an order granting Globalstar's application to extend the term of its senior HIBLEO-4 authorization by an additional 15 years and operate up to 26 replacement satellites. The Commission's reauthorization enables Globalstar, with over two decades of providing mobile satellite services globally, to continue to invest in, operate, and innovate satellite and communications

solutions. Significantly, the Commission has reaffirmed its prior decisions regarding Globalstar's exclusive operations in its licensed portion of the Big LEO Band.

The Commission stated in its order, "This modification grant will enable Globalstar to continue to provide a variety of essential voice and data communications services to consumers, including safety-of-life services, through its global satellite network."

"Globalstar appreciates the time and resources devoted by the Commission and its dedicated staff to consider and complete our application in such a timely manner. The satellite refresh program is expected to result in improved performance and coverage for Globalstar's mobile satellite services, including Direct to Device satellite connections, around the world," said Dr. Paul E. Jacobs, CEO of Globalstar. "The company is well positioned to meet the commercial demand for our products and services." **T**

The importance of multi-topology SCPC modems in satellite communications

Gil Elizov
Vice President, Products, Gilat

Satellite communications have revolutionized global connectivity, enabling seamless communication across vast distances and hard-to-reach terrain. SCPC modems are a unique solution in satellite communications, enabling point-to-point connections that have become increasingly essential due to their ability to offer dedicated bandwidth, low latency, and high reliability. These modems are particularly valuable in scenarios where consistent performance and quality of service are paramount. Their unique capabilities make them indispensable for supporting a wide range of applications, from enterprise connectivity and broadcast services to high-throughput data transfer and real-time communications.

Understanding SCPC modems

SCPC modems offer a point-to-point connection in a hub-less environment where each modem implements full receive and transmit capabilities over dedicated bandwidth. This differentiates SCPC modems from other types of

modems, such as Time Division Multiple Access (TDMA) modems, which combine multiple channels into a single carrier. The dedicated point-to-point nature of SCPC modems provides several technical and operational benefits, making them particularly valuable for applications that require constant connection and high throughput such as cruise ships, backhauling, and government.

Differences between SCPC and other modems

Over the years Gilat has focused on TDMA-based modems due to the market need for bandwidth sharing for vast applications like enterprise and 3G/4G cellular backhauling. But as the need for throughput has increased and the desire to be connected anywhere with high throughput/low jitter became a bare necessity, we at Gilat understood the need for a high throughput, multi-orbit SCPC Modem to provide the best experience for high-end applications.

As such, we recently announced the

addition of an SCPC modem to our **SkyEdge IV Aquarius Pro**, offering:

Efficient dedicated bandwidth usage: utilizes DVB-S2X waveform with high modcod usage up to 250Msps carrier to achieve the best efficiency and ensure consistent performance and quality of service.

Low latency: optimizes the advanced SkyEdge IV quality of service and queueing mechanism to minimize latency since there is no need for multiplexing and demultiplexing processes. This is critical for real-time applications like voice and video communications.

Scalability and flexibility: offers scalable solutions that can be easily adjusted to meet changing bandwidth requirements, without impacting other channels.

Enhanced security: combining the basic operation mode of SCPC based on the separation of channels reduces the risk of cross-channel interference and eavesdropping. In addition, the advanced

SkyEdge IV platform and Aquarius Pro's built-in security mechanism create an enhanced, secured point-to-point solution.

Importance of supporting different topologies

The ability to support various network topologies is essential for meeting the diverse needs of satellite communications users. Two topologies where the SkyEdge IV Aquarius Pro SCPC modem excels are star and point-to-point configurations; using Software Defined Radio capabilities the Aquarius Pro can operate as a point-to-point modem or a Star topology modem (as part of a SkyEdge IV network).

Star topology:

In a star topology, multiple remote nodes are connected to a central hub. SCPC modems are ideal for this setup because they provide dedicated links between the hub and each remote node. This ensures reliable and high-quality communication, crucial for applications like enterprise connectivity, where remote offices need consistent and uninterrupted access to central resources.

Point-to-point topology:

Point-to-point topology involves a direct communication link between two locations. SCPC modems are particularly well-suited for this configuration as they offer dedicated bandwidth and low latency, ensuring optimal performance for high-throughput applications like video conferencing, data transfer, and broadcast services.

Gilat's SkyEdge IV Aquarius Pro Modem with advanced SCPC capabilities

The SkyEdge IV Aquarius Pro with SCPC capabilities is a state-of-the-art solution designed to meet the demands of modern satellite communications. This modem is packed with advanced features that make it a standout choice for various

applications. Here are the key benefits:

Software-defined modem:

The SkyEdge IV Aquarius Pro with SCPC mode is a versatile, software-defined modem capable of operating in either star or point-to-point topologies. This flexibility allows it to adapt to different network configurations and requirements with ease.

Ultra-high throughput:

Designed for ultra-high throughput trunks up to 750Mbps per direction, the SkyEdge IV Aquarius Pro with SCPC mode is ideal for applications such as broadband, 4G and 5G backhauling, commercial maritime and cruise ships, and corporate enterprise services. This high capacity ensures that even the most bandwidth-intensive applications are supported efficiently.

Multi-orbit support:

The SkyEdge IV Aquarius Pro with SCPC mode supports multi-orbit GEO and NGSO satellites with seamless 'Make-Before-Break' satellite switching. This capability ensures uninterrupted service and seamless transitions between satellites, providing consistent and reliable connectivity.

Integrated MEF-based services:

The SkyEdge IV Aquarius Pro with SCPC mode integrates MEF-based Layer-2 and Layer-3 services, offering advanced networking capabilities. This integration allows for enhanced network performance and management, catering to sophisticated enterprise requirements.

S2X air interface:

Equipped with the S2X air interface, the SkyEdge IV Aquarius Pro with SCPC mode ensures maximum spectral efficiency and the highest terminal availability. This feature optimizes bandwidth usage and enhances

the overall performance of satellite communication links.

Flexible management:

The SkyEdge IV Aquarius Pro with SCPC mode offers flexible management options, allowing for independent control with local management capabilities or central user management. This flexibility ensures that network operators can choose the management approach that best fits their operational needs.

Unique RF combining technology:

The unique RF combining capability of the SkyEdge IV Aquarius Pro with SCPC mode enables higher reception levels over existing terminal antennas, enhancing signal quality by up to 3dB. This innovation allows the use of smaller antennas while achieving the same performance levels as a single large antenna, making it ideal for high-performance deployments constrained by antenna size, especially in challenging environments.

Conclusion

SCPC modems are integral to the success of satellite communications, offering dedicated bandwidth, low latency, scalability, and enhanced security. Their ability to support star and point-to-point topologies makes them indispensable for various applications, from enterprise connectivity to broadcast services. Gilat's SkyEdge IV Aquarius Pro with SCPC mode, with its array of advanced features, represents the pinnacle of SCPC technology. Its software-defined flexibility, ultra-high throughput capabilities, multi-orbit support, integrated MEF-based services, S2X air interface, and unique RF combining technology ensure enhanced efficiency, reliability, and cost-effectiveness. As satellite communications continue to evolve, the importance of robust and flexible SCPC modems like the SkyEdge IV Aquarius Pro will only grow, ensuring seamless and high-quality connectivity across the globe. ⊤

Neuron launches AI-powered Network Capacity Controller for dynamic satellite bandwidth optimization in fleets

Neuron, the AI-powered QoE management platform for things that move, has launched Network Capacity Controller, the first solution for dynamically orchestrating satellite capacity between the ships, aircraft or remote sites in a fleet. Network Capacity Controller uses AI and machine learning to make the best use of fleet-wide capacity when and where it's needed most, optimizing resources, performance, and quality of experience (QoE).

Satellite capacity, when allocated to a ship, aircraft or remote site, is generally fixed. In a fleet, if one endpoint requires more bandwidth due to high data demands, while another has excess capacity, resources cannot be easily reallocated to balance the load. Complex modeling and forecasting aim to avoid underutilization and congestion, but optimal usage is difficult to predict with changes in geography, weather, number of passengers, application requirements, demand variables over time and more. As a result, performance and cost inefficiencies are inevitable.

Network Capacity Controller intelligently reallocates capacity in near real time – no need for manual policies or interventions. For example, if Ship A's internet is impacted by weather, Network Capacity Controller will automatically shift capacity from Ship B to Ship A – and it will prioritize bandwidth that performs better in rain, like C-Band, while Ship B makes use of the other bandwidth options that are available. In another example, Ship B is planning to host a highly produced, live-streamed event at sea. Ship A will be docked at the time of the event, so instead of letting that capacity sit idle, Network Capacity Controller will redistribute it to Ship B for the event.

"Efficiently managing connectivity

resources across hundreds of moving ships and planes or remote assets is challenging," said Benny Retnamony, founder and CEO, Neuron. "Network Capacity Controller eliminates the need to make capacity decisions based on individual endpoints. Neuron can measure and determine how much capacity a fleet needs, and Network Capacity Controller will dynamically manage it to meet demand precisely when and where it matters."

Network Capacity Controller is underpinned by Neuron Grid, an AI-powered network management solution that delivers seamlessly blended connectivity across multiple providers, orbits and networks. Grid's intelligent decision engine makes decisions every 50 milliseconds to orchestrate traffic on a ship, plane or remote site over the right connectivity service at the right time, making the best use of all available onboard bandwidth at the highest QoE.

Grid constantly analyzes traffic patterns and trends to gauge current and future demands on the network. When the system detects an imbalance between endpoints, Network Capacity Controller will proactively direct

certain vessels to stop using an allocated pool of capacity, allowing the vessel(s) with the highest need to benefit from the additional throughput.

Network Capacity Controller can also manage specific consumption pools, whether LEO, MEO or GEO. Starlink, for example, has changed the traditional provider business model by allowing its customers to purchase a set amount of service to use anywhere they want. However, customers aren't equipped to manage consumption in that way. Network Capacity Controller can do it for them, dynamically managing each pool to maximize QoE and manage costs.

"At Neuron, we take care of the complex engineering so that our customers don't have to," said Prateek Dahale, Director of Engineering, Neuron. "Network Capacity Controller works behind the scenes, analyzing thousands of data points every second to make decisions about how to best orchestrate a fleet's pool of capacity and optimize the network accordingly. Its algorithm continually learns and adapts, ensuring smarter decisions and better results over time." ⊤

Firefly Aerospace shipped Blue Ghost for environmental testing ahead of Mission to the Moon

Firefly Aerospace has announced that it's Blue Ghost lunar lander has arrived at NASA's Jet Propulsion Laboratory (JPL) for environmental testing before the lander ships to Cape Canaveral for a Q4 2024 launch. As part of NASA's Commercial Lunar Payload Services (CLPS) initiative, Firefly's Blue Ghost Mission 1 lander is integrated with 10 scientific instruments and technology demonstrations that will help pave the way for humanity's return to the Moon.

"Firefly is proud to follow in the footsteps of the Surveyor landers that were tested in the same JPL facilities," said Peter Schumacher, Interim CEO at Firefly Aerospace. "The extensive environmental testing we'll complete at JPL combined with the robust testing we've already completed in house will further reduce our risk posture and set us up for a successful, soft landing."

The environmental testing at JPL includes vibration, acoustic, thermal vacuum, and electromagnetic interference and compatibility testing to ensure the integrated lander can withstand various flight environments during launch, transit, and landing on the Moon. This testing follows Firefly's robust testing campaign, including extensive qualification testing on the assembled Blue Ghost structure and each component.

Firefly also completed nearly 100 lander leg drop tests on multiple surfaces, including sand, lunar simulant, and concrete, to ensure Blue Ghost's shock-absorbing footpads can withstand the unpredictable nature of the lunar surface. The team further built a one-acre moonscape at its Rocket Ranch to test the hazard avoidance and terrain-relative navigation system on a heavy-lift drone, ensuring the system can identify the safest landing site in the final moments of descent.

"This incredible Firefly team implemented innovative testing approaches that are setting a new standard in the industry," said Jana Spruce, Vice President of Spacecraft at Firefly Aerospace. "After all the hard work, it's bittersweet to see Blue Ghost leave our Texas-based facility, but we're more than ready for this final test. We'll have a dedicated team of Fireflies with the lander every step of the way as Blue Ghost travels from Texas to California to Florida ahead of this historic journey to the Moon."

Following final testing, Firefly's Blue Ghost will ship to Cape Canaveral, Florida, ahead of its launch on a SpaceX Falcon 9 rocket scheduled for Q4 2024. Blue Ghost will then begin its transit to the Moon, including approximately a month in Earth orbit and two weeks in lunar orbit. This approach provides ample time to conduct robust health checks on each subsystem and begin payload operations during transit.

Blue Ghost will then land in Mare Crisium, a basin in the northeast quadrant on the Moon's near side, before deploying and operating 10 instruments for a lunar day (14 Earth days) and more than 5 hours into the lunar night. ◾

Viasat to deliver advanced in-flight connectivity to Azul's Airbus A330-900neo fleet

Azul and Viasat have announced that seven aircraft in Azul's new Airbus A330-900neo fleet will be equipped with Viasat's Ka-band in-flight connectivity solution, with the first aircraft scheduled to enter service next year.

Consistent with the in-flight Wi-Fi offering on Azul's other aircraft types equipped with Viasat's solution, Azul passengers traveling on the new, linefit Airbus A330-900neos will be able to enjoy onboard internet from gate to gate. Customers will be able to acquire packages for streaming audio and video, web browsing, and messaging.

"Part of what differentiates Azul in the Brazilian market is the best-in-class connectivity experience we offer on select aircraft," said Jason Ward, Azul's Chief People and Customer Officer. "From Brazilians' thirst for real time sports scores to their desire to stay connected to loved ones on the ground while flying, our hypothesis that this feature would be critical to customer satisfaction is playing out in the market. We look forward to continuing to work closely with Viasat as we continue to build on our current in-flight Wi-Fi experience in the future."

"After several successful years of serving Azul passengers in Brazil, we are excited to work with Azul to expand our connectivity onboard even more aircraft," said Don Buchman, VP and GM, Commercial Aviation at Viasat. "It remains Viasat's mission to continue delivering high quality and consistent in-flight Wi-Fi, so that passengers can enjoy online activities while in the air as they do on the ground, even as the demand for data grows and passenger expectations accelerate rapidly."

In addition to expanding their Wi-Fi enabled fleet, Azul is working with Viasat to enhance their passenger Wi-Fi experience by adding ad-supported streaming sessions using the Viasat Advertising platform. Azul is the latest airline to adopt the Viasat Advertising platform.

Viasat is focused on serving the aviation market by combining high throughout satellite capacity with the ability to flex that capacity, so that it can continuously and reliably meet demand where and when it is most concentrated, including over the busiest airport hubs in Brazil and everywhere else these Airbus A330neos will fly. ◾

Huawei's AI-Ready Infrastructure Supports Saudi Digital Transformation in Line with Vision 2030

Roy Luo, VP, Cloud Consulting Solution Sales Dept., Huawei Cloud ME&CA

Mark Chen, President of Huawei Cloud's Global Solution Sales Department

In an era where digital transformation is at the core of economic and social development, Saudi Arabia has set a bold vision for the future with its Vision 2030 strategy. Central to this vision is the nation's move toward technological advancement and digital sovereignty, and Huawei Cloud is playing a critical role in facilitating this transformation. At the recent Huawei Cloud Summit Saudi Arabia 2024, Huawei announced a series of groundbreaking initiatives aimed at accelerating digital transformation in the Kingdom.

Key Partnerships and Infrastructure Expansion

One of the most significant milestones has been the expansion of Huawei Cloud's Riyadh Region, from a single availability zone (AZ) to three AZs in record time. Roy Luo, Vice President of Cloud Consulting

Solution Sales Dept., Huawei Cloud ME&CA, highlighted this achievement while responding to Teletimes during a recent media roundtable hosted by Huawei. He noted, "Supported by the government, carriers, and data center partners, we expanded the Saudi Arabia region from a single AZ to three AZs in record time. During this period, we achieved CST's Class C certification and became the first hyperscaler to establish three availability zones with Huawei Cloud Riyadh Region. The Riyadh Region offers 25ms ultra-low latency for customers in Saudi Arabia and provides high-bandwidth, reliable, low-latency cloud direct connection. Additionally, with latency under 100 ms, it serves surrounding regions such as the Middle East, Central Asia, Africa, and Europe."

This expansion has significantly improved

the availability and performance of cloud services in the region, enabling industries across Saudi Arabia and beyond to benefit from Huawei's cutting-edge cloud solutions. Huawei Cloud's infrastructure now serves over 300 customers in Saudi Arabia, providing them with AI-ready cloud services that are designed to support the country's digital transformation goals.

Public Cloud Growth and Local Ecosystem Development

Huawei Cloud's commitment to supporting Saudi Arabia's digital transformation is also reflected in its impressive public cloud business growth. Luo added, "The revenue of public cloud services grew by 300% in the region, and the revenue of public cloud service increased tenfold in Saudi Arabia." This growth has been fueled by Huawei Cloud's ability to deliver innovative and
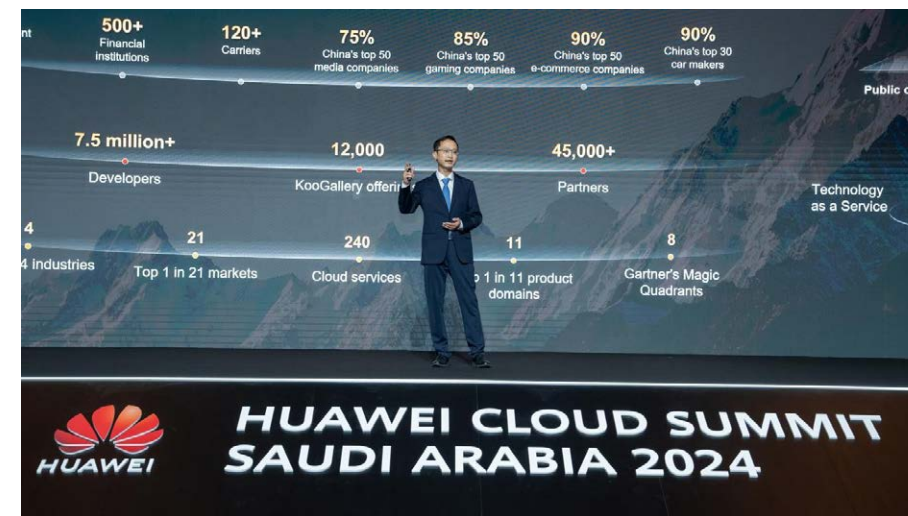
differentiated solutions tailored to local needs, which has driven the company's success in the Kingdom.

Moreover, Huawei has been a pivotal player in nurturing the local ecosystem. Lawrence Liu, CEO of Huawei Cloud Saudi Arabia, emphasized the importance of collaboration with the local community: "This year marks 22 years of Huawei's presence in Saudi Arabia, where we have consistently adhered to the principle of 'in Saudi Arabia, for Saudi Arabia.' We aim to collaborate with the country to nurture digital talent and strengthen the local ecosystem, with plans to train over 3,000 ICT undergraduates this year."

AI-Driven Solutions for Government and Industry

At the heart of Huawei Cloud's support for Saudi Arabia's digital transformation is its AI-ready cloud infrastructure. This infrastructure is designed to enhance various sectors, including government

Huawei Cloud's investment in talent development aligns with Vision 2030's focus on fostering local expertise and reducing reliance on foreign talent. By training thousands of students and partnering with over 100 local businesses, Huawei is helping to build a robust and sustainable digital economy.

services, retail, and finance. The company's Pangu models and AI development platforms are being used across a range of industries to solve complex problems and improve operational efficiency. Mark Chen, President of Huawei Cloud's Global Solution Sales Department, emphasized this, stating, "Huawei Cloud is committed to building AI-ready cloud infrastructure through systematic innovation and accelerating the intelligent upgrade of the industry."

One of the most notable AI-driven initiatives is the development of the Saudi government's Arabic large language model (LLM), which supports over 20 AI applications. By leveraging Huawei's AI-ready cloud services, the government has been able to deliver more efficient services and improve data sharing across departments. Additionally, Huawei's AI-driven solutions are being applied in sectors like retail and e-commerce, helping local businesses expand their operations and improve service delivery.

Conclusion

With significant investments in infrastructure, talent development, and innovative AI solutions, Huawei is playing a crucial role in supporting the Kingdom's digital future. As Roy Luo noted, "Huawei is the preferred partner for Chinese enterprises entering Saudi Arabia, actively delivering innovative and differentiated solutions to local customers." This partnership, combined with Huawei's deep commitment to the region, positions Huawei Cloud as a key enabler of Saudi Arabia's journey toward becoming a global digital leader.

With AI-driven solutions and cloud infrastructure designed to meet the unique needs of the region, Huawei Cloud is not only accelerating Saudi Arabia's digital transformation but also contributing to the broader Middle East, Central Asia, and African markets by providing low-latency, high-bandwidth cloud services that empower businesses to thrive in the digital age. ∎

Huawei unveils ICT solutions to accelerate Iraq's digital transformation at Baghdad Roadshow

Huawei has showcased ICT solutions at Middle East & Central Asia Commercial Roadshow in Baghdad recently, marking a significant milestone in Iraq's journey towards digital transformation. The event brought together over 200 industry leaders, customers, and partners to explore innovative solutions that will shape the future of Iraq's digital landscape.

The roadshow demonstrated Huawei's commitment to empowering key sectors of the Iraqi economy through tailored ICT solutions. The company showcased a comprehensive suite of technologies designed to revolutionize education, healthcare, government services, real estate, and finance.

In the opening speech, Alex Zhang, Vice President of Enterprise Business for Huawei Middle East & Central Asia, underscored the importance of digital transformation for Iraq, stating, "Digital transformation is not just a strategic imperative for Iraq but a pathway to sustainable growth. By leveraging advanced technologies and building strong partnerships, we can overcome challenges and unlock unprecedented opportunities for progress in government, education, healthcare, real estate, and financial services. Huawei is committed to investing in Iraq's ICT infrastructure and fostering a robust partner ecosystem to drive this transformation."

Rafid Abbas Khader, Business Environment Subsidiary Board Director, delivered a keynote titled "In Iraq, for Iraq". He said, "Huawei has operated in the Iraqi market for over 20 years and is dedicated to becoming a major contributor to the national digital economy. With an open mind and consistent cooperation spirit, Huawei will work side by side with all partners and customers, pursuing shared growth and success and beginning a new chapter for a thriving digital economy in Iraq."

The event highlighted Huawei's industry-specific solutions, each designed to address the unique challenges and opportunities within Iraq's key sectors.

In education, Huawei presented an integrated approach to creating dynamic learning environments, combining robust network infrastructure with secure data centers and interactive smart classroom technologies. For the healthcare sector, the company demonstrated how its smart wards system, advanced medical imaging solutions, and hospital network infrastructure can significantly enhance patient care and operational efficiency.

Huawei's financial sector offerings focus on fortifying data security and operational efficiency, providing financial institutions with the tools to drive economic stability and growth. In the government sector, the company showcased how its intelligent office systems, advanced campus networks, and streamlined data centers can transform public services and decision-making processes. For the real estate industry, Huawei presented innovative solutions for smart property management, emphasizing sustainability, energy optimization, and enhanced tenant experiences.

Jason Yang, Director of Commercial Business Huawei ME&CA, underscored the immense potential for digitalization in Iraq's government and enterprise sectors. "Huawei's strategic investments, robust partnerships, and partner-led approach position us at the forefront of Iraq's digital revolution," Yang asserted.

The roadshow also marked the debut of HUAWEI eKit, a groundbreaking platform tailored for small and medium-sized enterprises (SMEs). This comprehensive solution integrates essential business functions, including marketing, transactions, and partner operations, offering SMEs a powerful toolkit to thrive in the digital age.

The event's success serves as a testament to Huawei's unwavering commitment to driving digital transformation in Iraq, promising a future where technology empowers every individual, every business, and every sector of the economy. ⊓

HUAWEI TruSense System unveiled: A new health and fitness paradigm

HUAWEI TruSense System was unveiled to the world on August 28. HUAWEI TruSense aims to make health quantifiable, to help users live better lives. It represents a significant leap forward in the company's ongoing mission to bring accurate, data-driven health technology into everyday life to help users improve their well-being.

Huawei entered the wearables space 11 years ago and, to date, has shipped over 150 million wearables and secured more than 520 million users for its Huawei Health app. According to IDC, Huawei ranked #1 globally in on-the-wrist wearables shipped during the first quarter of 2024 and has maintained its position as the leading wearable brand in the Chinese market for five consecutive years.

"HUAWEI TruSense is a major breakthrough for Huawei in health and fitness sensor technology and will keep Huawei at the forefront of technological development in this space. This digital health advancement will further help users pursue healthier lifestyles," said Rico Zhang, President of Huawei's Smart Wearable and Health Product Line, speaking at the HUAWEI TruSense launch event.

Consumers around the world are more health-conscious than ever before, and this has created demand for convenient, comprehensive, and accurate monitoring capabilities. Huawei's response to this demand is the HUAWEI TruSense System, which integrates the latest advances in vital sign monitoring. This new digital health and fitness paradigm is defined by its six key characteristics: its accuracy, comprehensiveness, speed, flexibility, openness, and iterative capabilities.

To ensure the long-term accuracy of its continuous vital sign monitoring, as well as deliver faster results, Huawei invested heavily in optical, electrical, and material science research. These innovations have addressed challenges posed by varying skin tones, wrist sizes, and weather conditions. As a result, the accuracy of basic indicators such as heart rate, SpO2, and blood pressure has been certified by authoritative industry bodies.

HUAWEI TruSense monitors more than 60 health and fitness indicators across six major bodily systems and also includes an emotional well-being component. By analysing heart rate and autonomic nervous system data, the system's algorithm assesses users' emotional well-being and stress levels, helping users enjoy the benefits of both a healthy body and a healthy mind.

The flexibility, openness, and ongoing iteration of the HUAWEI TruSense System empower partners from across the world and various sectors of the digital health ecosystem to participate in shaping the future of health and fitness technology. Huawei has already collaborated with over 150 partners on pioneering research in areas ranging from remote healthcare to family health management.

Huawei will continue to push the boundaries of health and fitness science to help improve the quality of life of its users. ⊓

Kawar Energy and Huawei collaborate to supercharge Jordan's EV industry

In a bid to support Jordan's burgeoning Electric Vehicle (EV) industry, Huawei and Kawar Energy recently announced a strategic collaboration to install Huawei's advanced superchargers at Manaseer Gas Stations across the Kingdom over a two-year period. This partnership is set to significantly increase the number of EV charging stations, making them more accessible to EV car owners.

Jordan has one of the largest EV markets in the region, with projections indicating substantial growth in the Kingdom's EV market in the coming years. This collaboration is set to address this growing demand by introducing cutting-edge EV charging solutions to the Jordanian market. In addition, the MoU outlines future plans for both companies to explore additional business opportunities beyond gas stations. It targets many sectors, including public and private, with the goal of introducing this advanced technology throughout the Kingdom of Jordan.

The Memorandum of Understanding (MoU) was signed by Zhang Shizhe, General

Manager of Huawei Jordan, and Eng. Firas Alkhatib, CEO of Kawar Energy, in the presence of senior teams from both companies.

Eng. Firas Alkhatib, CEO of Kawar Energy, said: "We are thrilled to be partnering with Huawei. This collaboration marks a significant step forward for the energy sector in Jordan, as it aligns with our vision of fostering innovation and sustainability. We are confident that this partnership will play a pivotal role in advancing the country's EV infrastructure. Huawei's commitment to cutting-edge ICT technology, combined with their innovative solutions in smart renewable energy and digitalization, ensures we are equipped to meet the

evolving energy needs of Jordan efficiently and sustainably."

Zhang Shizhe, General Manager of Huawei Jordan, commented: "Kawar Energy is one of the leading technology integrators in the Jordanian market. This MoU not only strengthens our partnership but also paves the way for the expansion of Huawei's technology across various sectors in the kingdom. At Huawei, we are committed to driving innovation in the energy sector through our advanced digital power solutions, which include our industry-leading Superchargers and smart management technologies. With this partnership, we believe we will set a new standard for EV infrastructure in the region and help accelerate the adoption of electric vehicles across the Kingdom."

Jordan's EV users will benefit from Huawei's industry-leading supercharging technologies, powered by the Huawei Digital Power unit. For instance, Huawei's Liquid Cooled technology includes a smart Power Sharing Matrix capable of charging one KM range in just one second. ▪

Saudi Arabia rapidly advancing towards achieving a hyper-resilient digital infrastructure

MENA ISC 2024 anchors the Kingdom's strategic cybersecurity goals by encouraging increased collaboration between various players in the sector to achieve a hyper-resilient cyber-infrastructure

In today's world, the top 5% of cybersecurity teams are setting a new standard in digital trust through robust defense strategies. According to PwC's 2024 Global Digital Trust Insights survey, these elite teams demonstrate exceptional capabilities, with 96% of them consistently responding quickly to threats, enabling their organizations to emerge stronger from disruptions. Additionally, 94% of these top performers incorporate data security and privacy features into their products, services, and third-party relationships. Furthermore, 96% of the top 5% have successfully implemented controls throughout their organizations to prevent serious cyber disruptions, significantly outperforming the general respondent group, where only 25% to 30% achieve similar outcomes, indicating integration of cybersecurity in strategic business initiatives

as cyber incidents are the most feared cause of business interruption, surpassing natural disasters or energy concerns.

With the Kingdom's strategic goal of being one of the most digitally-forward and advanced economies, the increasingly

sophisticated and pervasive nature of cyber threats are pushing organizations to adopt a newer concept known as "hyper-resilient cybersecurity" to protect their digital assets in this push towards digitalization. This new paradigm in cybersecurity leverages a combination of advanced technologies, along with Artificial Intelligence (AI) and Machine Learning (ML) at the forefront, to create a robust defense against evolving cyber adversaries.

Clinton Firth, Partner, at PwC Middle East said: "Cyber resilience is no longer just a defense mechanism; it's a strategic imperative. In today's interconnected digital landscape, organizations must not only defend against cyber threats but also anticipate, adapt, and recover swiftly. Saudi Arabia's ambitious Vision 2030 aims to position the Kingdom as a global leader

in digital transformation, and its efforts toward building a hyper-resilient digital infrastructure reflect this commitment. By fostering collaboration between public and private sectors and adopting advanced technologies like AI, the Kingdom is not only enhancing its cybersecurity posture but also setting a new standard for others to follow."

AI and ML have revolutionized the cybersecurity landscape in both positive and negative aspects. AI and ML technologies enable real-time threat detection and adaptive response mechanisms and are expected to drive a 30% reduction in false positive rates for threat detection and application security testing by 2027 while reducing incident response times by up to 12%, allowing for faster mitigation of threats. Another application of AI and ML is Continuous Threat Exposure Management (CTEM), which involves proactive monitoring and prioritization of vulnerabilities, allowing organizations to address potential threats before attackers exploit them.

These technologies analyze vast amounts of data to identify anomalies and predict potential threats before they can inflict damage and security professionals report that AI and ML have significantly improved their ability to prevent cyberattacks and maintain a strong defense posture. According to PwC's 2024 Global Digital Trust Insights survey, nearly seven in 10 say their organization will use generative AI (GenAI) for cyber defense. GenAI tools

can help reduce a disadvantage for cyber teams overwhelmed by the sheer number and complexity of human-led cyber attacks, both of which continually increase.

Zero Trust Architecture, another critical component, operates on the principle of "never trust, always verify." This approach requires continuous verification of user identities and access rights, minimizing the risk of unauthorized access through strict access controls and monitoring. As hybrid cloud adoption increases, robust cloud security measures are essential to prevent unauthorized access and data breaches, ensuring data integrity and confidentiality in cloud environments.

The Internet of Things (IoT) has expanded the attack surface, making IoT security a critical focus. IoT security solutions aim to secure device communication and data integrity, preventing unauthorized access and data manipulation. Meanwhile, Identity and Access Management (IAM) solutions ensure that only authorized users can access sensitive resources, incorporating threat detection mechanisms to bolster security postures.

By integrating these technologies, organizations can build a hyper-resilient cybersecurity framework capable of withstanding the evolving threat landscape. This comprehensive approach enhances threat detection and response and also ensures that critical digital infrastructures are better protected against sophisticated

cyber adversaries.

Encouraging and fostering deeper collaboration between various agencies and parties such as the private sector, the public sector, international players and the governmental sector becomes a critical task for the cybersecurity industry to be able to achieve a "hyper-resilient cybersecurity" framework. PwC's survey also shows that leading cybersecurity teams understand the importance of maintaining strong relationships with the public sector with 85% of the top 5% of cybersecurity teams regularly engaging with public sector entities at all administrative levels, far surpassing the general industry practice, where only 21% of teams maintain such relationships to build organizational resilience.

MENA ISC 2024, with the theme - Hyper-Resilient Cyber: Navigating the Evolving Threat Landscape of the Interconnected World of IT, OT, IoT, IIoT, & Hybrid Cloud, aims to be a trusted platform for cybersecurity professionals, CISOs, IT and OT professionals, as well as policymakers in the region and in Saudi Arabia, which is one of the fastest growing and key markets internationally, to address and share knowledge on cybersecurity's most critical and emerging issues through first-hand interactions.

This year's conference will bring together leading local and international players from both the private and public sectors, including CyberKnight, a leader in cybersecurity solutions distribution; Cyber Polygon, renowned for its advanced cybersecurity training and simulation platforms; and Salam, a major Saudi-based telecommunications provider. Prominent international companies such as Kaspersky, Google Cloud Solutions, and Crowdstrike, along with local Saudi cybersecurity leaders like NourNet, will also be in attendance. Together, they will offer valuable perspectives and solutions, fostering crucial collaborations essential for establishing a cybersecurity framework that not only defends against but also swiftly recovers from and learns from cyber-attacks and disruptions. ⊞

Transforming Telcos Through AI

Leveraging AI to transform telco's commercial models

By: Gonzalo García, Omar Becerril, Clément Samson, Marc Palacios Boix, Guillem Casahuga, Christian von Reventlow at Arthur D. Little

AI is reshaping the commercial landscape for telecom companies. It offers innovative solutions that empower telcos to operate with heightened efficiency and precision. In this Viewpoint, we explore how leveraging AI optimizes individual transactions, can boost customer engagement by over 15%, and reduce operational costs by up to 30%. As telcos

embrace AI-driven tools, the potential to accelerate growth and gain a competitive advantage becomes increasingly evident.

AI is a rapidly evolving field that encompasses a variety of techniques and approaches to create intelligent systems capable of performing tasks that typically require human intelligence. AI is fueled

by advancements in various subfields, including:

• Natural language processing, which enables computers to recognize, understand, and generate text and speech

• Computer vision, which enables

computers to interpret and understand visuals such as images and videos

• Predictive analytics, which allows for predictions based on historical data, statistical modeling, data mining, and machine learning

• Generative AI (GenAI), which focuses on creating new content, such as images, text, code, simulations, and audio, among others

By seamlessly integrating various subfields, telcos unlock a diverse range of promising AI use cases, tailored to the maturity of the company and industry, the complexity of the desired solution, and the practical applicability of the use cases. In customer engagement, in particular, AI excels at personalized approaches, proactive service enhancement, sentiment analysis, and churn prevention. Core processes benefit from automated knowledge management, enterprise-wide search, and dynamic content generation.

On the technology front, substantial improvements come via demand forecasts, infrastructure monitoring, legacy code analysis, and software development. These applications demonstrate AI's versatility and impact across multiple facets of telco operations and promise enhanced efficiency and innovative solutions.

A study conducted by Arthur D. Little (ADL), comprised of 70 chief experience officers (CxOs) from world-class communications service providers (CSPs), identified the main benefits leveraged through daily use of AI (see Figure 1):

• 71% emphasized improved customer experience (CX) as a primary AI benefit, including the customer-facing side of personalized sales and as an active tool for agents to improve customer support.

• 63% use AI to enable intelligent network optimization and predictive maintenance, leading to improved service quality and reduced downtime.
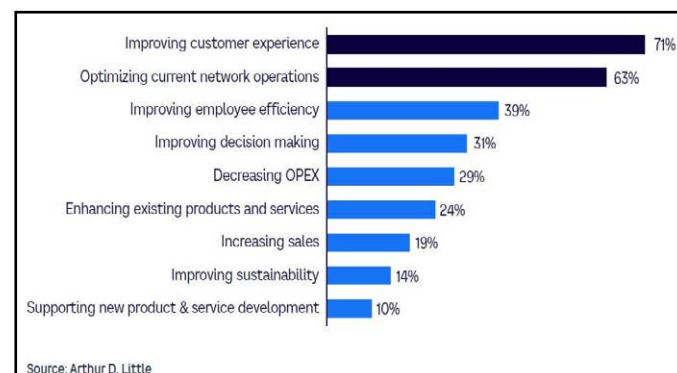

Figure 1. Main benefits of AI

These benefits come primarily from GenAI. These AI models hold immense potential for various industries, with commercial applications for sales, marketing, and customer relationships, among others. As GenAI goes beyond automating tasks, it introduces innovative solutions that companies can use to accelerate opportunities to cut through complexity in customer support.

ENHANCING DIGITAL ADOPTION

Many telecom operators worldwide still lag in understanding the significant impact of digital channels on the evolution of channel mix and in understanding the methodologies required to seamlessly apply AI to enable such digital adoption by telecom operators. According to a recent ADL Blue Shift Report based on in-depth research, market experience, an online expert survey, and interviews with leading players, only 16% of the 49 organizations surveyed had large-scale investments in GenAI in 2023; 22% had limited investments in the area, with the rest having no investments or no awareness of any investments within the organization.

Attitudes toward GenAI are also a barrier, as documented in Blue Shift:

• 51% of surveyed experts and organizations had limited familiarity with the subject.

• 18% had strong familiarity with AI use cases within their organization.

• 20% of the surveyed organizations had no familiarity with the technology.

• 4% were aware of technology but refused to implement it.

Efficient utilization of these new technologies and digital formats can yield significant benefits, particularly in three key areas of value:

1. Operational model and cost structure. Digital channels significantly reduce the need to maintain multi-format physical channels, as well as remote call centers and commissions with third parties. Consequently, the investment made would be directly offset by the savings and cost efficiencies produced. For example, ADL analysis shows that 30% more customers can be served by a single agent, and customer response waiting time can be reduced by 20% through a well-developed AI digital channel where customers are greeted by a hybrid AI-agent profile first.

2. CX. AI can enhance engagement and improve CX at every stage of the lifecycle, from initial contact through the sales process and quality assurance to the management of existing

customers to reduce churn probability. Our studies show that SMS/email content and visuals adjusted, based on consumer lifestyle/microsegment, generate a 15% higher positive response, increasing the net promoter score (NPS) faster than with traditional mechanisms.

3. Commercial efforts. The availability of richer information and insights can assist in personalizing and adjusting the value proposition, promotions, pricing, and conducting more effective cross-selling and upselling efforts. For example, ADL analysis indicates that a text-to-image model creates custom "apparel" that can be tailored to a "unique" service, resulting in a 40% increase in platform browsing and attention from customers.

The AI revolution has the potential to help telco's commercial channels evolve from personalized sales to proactive service. Yet bridging the gap between potential and profit requires more than just technical expertise. A strategic roadmap is key to ensuring that the company does not fall behind and successfully implements AI commercial capabilities, as they must become part of daily operational routines. We propose an effective and seamless three-step approach to activate and enhance these capabilities.

As we illustrate later in this Viewpoint, this approach focuses first on laying the proper foundations for AI adoption, followed by strategic implementation and development, and ends by optimizing the engine for continuous improvement. By following this roadmap, telcos can transform AI from a futuristic ideal to a potent engine for innovation and commercial success. But first, let's examine how AI affects the sales process.
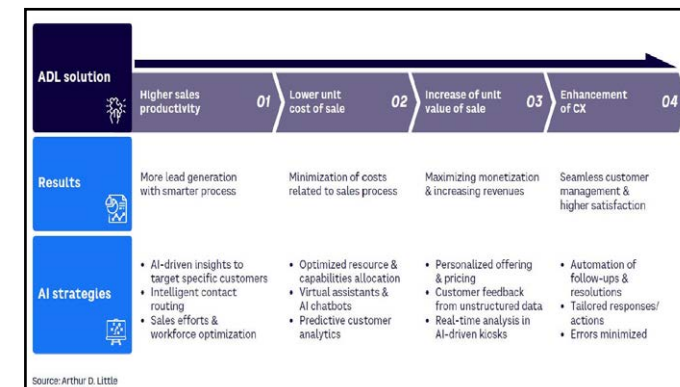

Figure 2. Effects of AI-driven commercial revamp with AI

HOW AI IMPACTS THE SALES PROCESS

Telcos can effectively use AI end-to-end (E2E) through the entire sales process, as shown in Figure 2. First, telcos can enhance sales productivity, resulting in more lead generation, by leveraging AI-driven insights to effectively target customers. Additionally, telcos can lower unit costs within the sales process by optimizing resource allocation and capabilities.

Subsequently, telcos can maximize the value of each sales unit by adopting personalized offerings and pricing strategies. Finally, telcos can enhance CX and satisfaction by automating their follow-ups and resolution processes.

1. IMPACT OF AI ON SALES PRODUCTIVITY

AI is reshaping sales with tools that elevate productivity; its offerings range from visual search for streamlined CX to real-time customer data platforms. These advancements work together, encompassing proactive communications, intelligent contact routing, and emotional detection, aiming to turn every interaction into potential sales through personalized responses.

AI's strength lies in task automation, interaction personalization, and workforce optimization.

Cases across the telco industry include targeting and lead generation, predictive analytics that empower teams to sift through vast amounts of customer data, and high-potential lead identification that enables focused efforts on the most promising opportunities. Through market segmentation, AI helps tailor sales approaches and messages to different customer groups, ensuring a more personalized and effective engagement strategy. Real-time lead scoring further streamlines the process, allowing sales reps to prioritize and convert leads based on their online behavior and interactions.

GenAI is redefining managerial capabilities by evolving reports into predictive diagnostic tools, enabling swift opportunity identification, and real-time coaching.

This transformative approach replaces custom builds with the adoption of off-the-shelf applications, reducing the need for specialized talent.

In sales process automation and optimization, automated quote generation not only saves time for sales reps but also ensures precision. Moreover, AI facilitates more efficient contract analysis and review, highlighting key terms and potential risks. The integration of AI-powered sales pipeline management tools automates tracking, prioritizes tasks, and provides valuable insights, ultimately optimizing the entire sales workflow and enhancing team productivity.

AI is going beyond efficiency to unlock business-to-business (B2B) sales potential. Indeed, Gartner projects that by 2025, 75% of B2B sales teams will integrate AI-driven selling into their methods. By handling repetitive tasks, AI empowers sales reps to concentrate on strategic endeavors. Real-time insights from AI facilitate faster, data-driven decisions. AI's comprehensive tools are revolutionizing sales productivity by urging teams to work more intelligently, with the potential for further productivity enhancements.

Sector insights: Marketing, from B2C to B2Me

A leading telco operator developed an AI factory with a 360-degree data platform of automated marketing to offer the right product at the right time to the right customer. A rich customer knowledge base was created by leveraging real-time behavioral and transactional data. For example, a new platform delivered personalized offers across all channels in real time. An AI-powered automated marketing ecosystem from product-centric (sending a product offer to relevant customers) to customer-centric (sending each customer the most relevant offer) - is shown in Figure 3. This AI factory has allowed the operator to increase existing sales by 6% since its implementation.
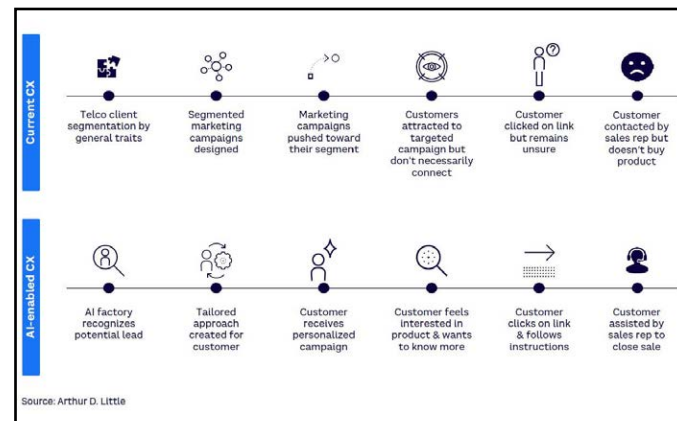

Figure 3. Marketing experience case study

2. ELEVATING UNIT VALUE OF SALES THROUGH AI

AI-powered customer analytics and segmentation in telecom companies do more than streamline business operations; they amplify the unit value of sales. By leveraging data-driven insights, CSPs use AI to provide tailored solutions, increasing the likelihood of successful sales closures and upselling.

GenAI enhances pricing strategies by rapidly benchmarking products and extracting valuable customer feedback from unstructured data. This facilitates intelligent customer segmentation and pricing approaches, which drive growth and customer satisfaction.

Additionally, in B2B environments, AI's swift identification of key contract clauses supports the creation of competitive offers that contribute to revenue enhancement.

3. REDUCING UNIT COST OF SALE WITH AI

AI is dynamically transforming the sales function. The adoption

Sector insights: AI's role in amplifying sales value

A leading telco operator introduced AI to its stores to revolutionize its services. By implementing AI-driven kiosks, the telco personalized promotions and enhanced service assistance, while AI tools optimized inventory and prices based on local preferences. Furthermore, real-time AI systems provided staff with immediate customer data, ensuring tailored in-store guidance. As a result, the operator achieved a remarkable 75% surge in revenue, all while significantly elevating customer satisfaction.

of AI is expected to potentially generate a spike in leads, while significantly reducing call time and costs. By automating forecasting and honing high-quality lead targeting, AI ensures efficient time and resource investment, slashing both labor and miscellaneous costs.

Virtual assistants and AI-driven chatbots are revolutionizing customer support by delivering personalized experiences and automating routine tasks, freeing up human resources for more complex issues. AI-powered chatbots enhance CX and reduce costs by swiftly providing tailored information. They facilitate seamless handoffs to human agents, who are equipped with data acquired by the chatbot when needed. These elements expedite interactions, resulting in significant time and operational cost savings. AI's potential in commercial applications isn't restricted to applications that directly interact with the customer; it also ventures into dynamic price optimization, adjusting prices in real time to address market changes and integrate competitor data.

Internally, AI-powered management tools maximize human resource allocation; when paired with predictive customer analytics, the tools can anticipate needs and streamline operations. Additionally, AI's predictive capabilities extend to managing energy consumption across networks, serving as a preemptive factor in network planning, deployment, and operations.

Sector insights: AI's role in reducing cost of sale

A leading telco operator implemented conversational AI to reduce the number of agents and increase service quality (see Figure 4). The implementation of AI has delivered impressive results, using billions of interactions to drive engagements in conversations. The chatbot has become more human and consistent and has relied on past experiences to select the best solutions; it managed to improve the brand's relationship with its customers while incrementing converted sales by 4x, reducing the cost per interaction by 50%, and increasing customer satisfaction by 20%.
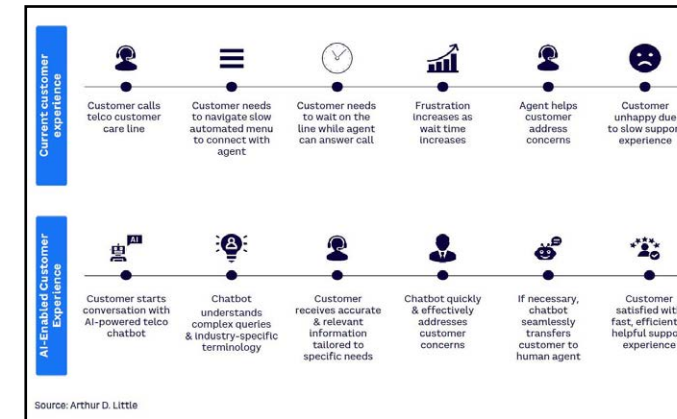

Figure 4. Customer care experience case study

4. AI ENHANCEMENT OF CUSTOMER MANAGEMENT & EXPERIENCE

AI plays a pivotal role in refining customer follow-up and responses, which significantly benefits sales executives. By automating lead nurturing campaigns, it enhances efficiency by introducing new offerings to existing clients and managing requests, complaints, and suggestions (RCS), thus freeing up executives to focus on critical tasks such as closing deals. Its unique capability lies in crafting personalized follow-up messages and responses, thereby increasing conversion prospects, providing efficient RCS solutions, and ultimately leading to higher customer satisfaction. By leveraging historical data, AI determines optimal times for follow-ups, ensuring timely and relevant interactions.

Moreover, it recommends tailored solution response actions, minimizes errors, and continually monitors effectiveness for strategic enhancements.

AI's impact extends further through complete automation of the follow-up and response process, autonomously dispatching personalized messages at precisely the right time without requiring human oversight. This timely and targeted communications significantly amplify the interaction outcomes, keeping customers engaged at crucial moments. Furthermore, this autonomy enhances conversion chances and empowers sales executives to engage in complex negotiations and cultivate relationships more effectively.

AI-powered transformation

Various AI tools assist customer service personnel in providing a better experience and gaining a deep understanding of their users. ADL recently embarked on proactively transforming the customer service of a tech company, aiming to establish a unified perspective on the customer. This involved consolidating diverse brand viewpoints to empower call center agents and enhance the overall CX:

— The project was launched after a merger and aimed to revolutionize engagement, creating a seamless 360-degree view of customers.

— Success was achieved through a multi-brand, fully integrated solution across channels, leveraging leading cloud providers for standard components and innovating differentiators. The iterative implementation, guided by agent preferences, delivered tailored efficiency.

Results included a unified view of customers and omnichannel communications with a consolidated entry point. A unified agent backend could access all relevant information, thus reducing resolution time. About US $6 million in synergy savings resulted from eliminating technology and workforce duplication.

Additionally, AI provides comprehensive records of these interactions, capturing their success metrics for future reference and analysis.

ACTIVATING COMMERCIAL CAPABILITIES THROUGH AI

As the wave of AI continues, several pivotal concerns emerge that businesses must address to harness its full potential. rom governance structures to the nuances of use case selection and the ever-present need for data security, a comprehensive three-step roadmap (see Figure 5) can guide leaders through their AI journey of integrating its capabilities into their day-to-day processes.

1. SETTING THE SCENE

• Goals definition. Clearly articulate desired outcomes for implementing AI. Identify specific business challenges to address and the value to unlock. A roadmap with well-defined goals guides the journey and ensures every step contributes to their achievement.

• Governance and sponsorship. Establish a clear ownership structure, whether centralized or decentralized, and designate a dedicated senior sponsor to drive decision-making and accountability aligned with the goals.

• Data integrity and infrastructure. Secure high-quality data, cultivate robust underlying processes and systems, and prioritize data security as the foundation for reliable and trustworthy AI outcomes that support the process of achieving goals.

• Demystifying AI. Bridge the knowledge gap by educating leadership on key AI concepts and equip the team with relevant AI tools to minimize bias and promote informed decision-making, enabling effective implementation and utilization of AI solutions.

2. CHARTING THE COURSE

• Maturity assessment. Conduct a comprehensive evaluation of the organization's AI readiness, identifying strengths and weaknesses to develop a roadmap for skill and infrastructure development.

• Use case prioritization. Meticulously analyze potential AI applications, quantify their impact, and prioritize high-value initiatives to maximize ROI and steer resources toward projects with the greatest potential.

• "Lighthouse" projects. Implement strategically chosen pilot projects, using minimum viable products as controlled experiments to gather valuable data, refine approaches, and ensure success before full-scale deployments.
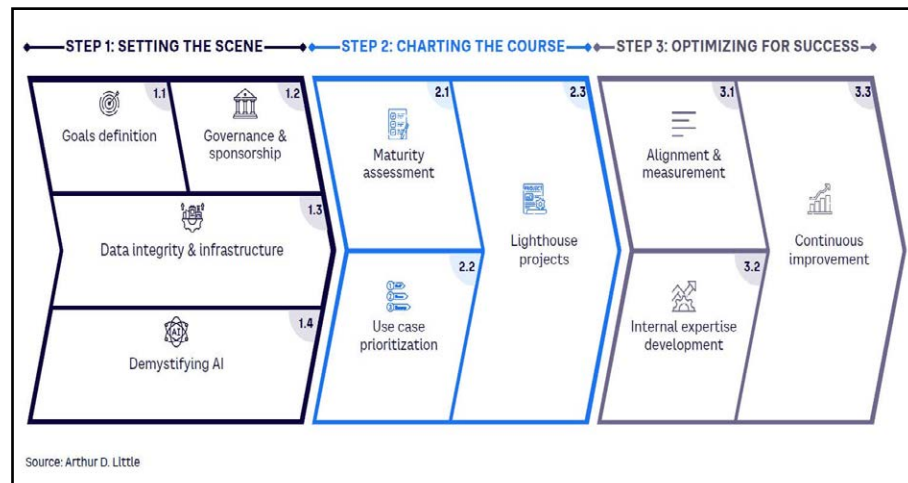
Figure 5. Three-step roadmap for AI journey

3. OPTIMIZING FOR SUCCESS

• Alignment and measurement. Identify KPIs for each AI application to ensure alignment with overall strategic objectives and enable measurable results.

• Continuous improvement. Foster a culture of iterative learning by regularly evaluating the business impact of deployed AI solutions, adapting approaches based on data insights, and actively seeking new optimization opportunities.

• Internal expertise development. Invest in comprehensive training programs for the workforce on AI tools and methodologies to cultivate in-house expertise and empower teams to drive future innovation and success.

NAVIGATING THE NEXT DECADE

The landscape for customer engagement within the telecom sector continues to be ripe for innovation, with enterprise service management tools playing a pivotal role. An in-depth ADL analysis unveiled AI as the torchbearer leading the charge toward a more personalized, insightful, and efficient future:

• Hyperpersonalization in marketing. The power of GenAI is being harnessed to revolutionize marketing and sales strategies. Telcos are now poised to

see a 3%-7% revenue increase through AI's capability to tailor social media and advertising messages, creating a more personalized dialogue with customers.

• The "segment of one." The traditional one-size-fits-all approach to campaign management is giving way to a "customer segment of one," with potential revenue boosts of 2%-6%. This hyperpersonalized strategy digs deep into consumer behaviors, enabling telcos to focus their communications and offerings on individual preferences and behaviors.

• AI-powered churn reduction. Churn management is transitioning from reactive to predictive, with AI using vast data sets, including location and browsing history, to anticipate and address churn proactively. This could lead to a 2%-5% reduction in churn rates.

• Redefining sales and channel partnerships. In sales and market planning, AI and data-driven strategies are recalibrating the dynamics between telcos and their channel partners. It's no longer just about managing partners, but empowering them with AI-crafted content to fuel their sales, projecting revenue increases of 2%-6%.

• Loyalty in the AI era. Lastly, loyalty and referral programs are being reimagined through AI's lens. Personalization goes

beyond basic point systems to create dynamic loyalty programs that could enhance customer retention by 2%-5%.

As we push toward 2030, it's clear that AI's role in marketing, sales, and loyalty programs will not just support the existing infrastructure, it will redefine it. The technology's current trajectory promises a future where each customer interaction is an opportunity for telcos to consolidate their relationships, drive revenue, and reduce costs, all while delivering an unmatched CX. The onus is now on these companies to strategically invest and integrate these AI advancements to remain at the forefront of this customer engagement revolution.

CONCLUSION

BOOSTING SALES EFFICIENCY & CUSTOMER SATISFACTION

Telcos that proactively integrate AI into their daily operations can achieve significant improvements in sales efficiency and customer satisfaction. Embracing these advancements is essential for maintaining a competitive edge, maximizing operational efficiency, and enhancing customer interactions, which will create substantial value:

1. Refining sales strategies and follow-up processes. AI optimizes the unit value of each transaction, ensuring tailored and value-added engagements.

2. Advanced automation. AI enables professionals to focus on more intricate tasks, fostering stronger relationships and improving conversion chances.

3. E2E impact. When used proactively in daily operations with an E2E approach, AI can positively impact all areas and processes.

4. Competitive edge and operational efficiency. Embracing AI is crucial for businesses to maintain a competitive edge, maximize operational efficiency, and elevate customer interactions. ∎

Intersec 2025 to address UAE's unified approach to cybersecurity

Intersec 2025 will return to the Dubai World Trade Centre from 14 to 16 January 2025, with an enhanced focus on Cybersecurity.

In its 26th edition, Intersec 2025 will spotlight cybersecurity, placing greater emphasis on the in{cyber} section. This initiative underscores the importance of cybersecurity and its connection to other crucial security domains, including physical security, emergency response, Homeland Security, and Policing. The event will feature a dedicated startup zone and Innovation Stage, showcasing cutting-edge solutions and advancements. This strategic focus ensures a cohesive experience for visitors and offers a comprehensive perspective that addresses the real-world threats the industry faces today.

Grant Tuchten, Portfolio Director at Messe Frankfurt Middle East, said: "We are thrilled to welcome the UAE Cyber Security Council as a supporting partner for Intersec 2025. Their involvement underscores the critical importance of cybersecurity in today's threat landscape. By collaborating closely with the UAE Cyber Security Council, we are able to deliver cutting-edge content, awareness sessions, and workshops that will significantly enhance the value of the cybersecurity sector at Intersec. This partnership is a testament to our shared commitment to advancing cybersecurity awareness and driving global growth in the security industry."

The importance of cybersecurity in the UAE cannot be overstated, especially as the threat landscape continues to rapidly evolve. According to the 2024 State of the UAE - Cybersecurity Report by the UAE Cyber Security Council and CPX Holding, the UAE faces significant cybersecurity challenges. The report highlights over 155,000 vulnerable assets, with a concerning trend of critical vulnerabilities remaining unaddressed for over five years.

Ransomware attacks make up over half of the cyber incidents, with government, energy, and IT sectors being the primary targets.

The UAE Cyber Security Council has reaffirmed its support as a partner for the Cyber Security sector at Intersec 2025. Commenting on the partnership, His Excellency Dr. Mohamed Al Kuwaiti, Head of the UAE Cyber Security Council, said: "We are delighted to once again support the cybersecurity sector at the 26th edition of Intersec. Hosting the 4th annual Cyber Security Conference, the UAE Cyber Security Council collaborates closely with the Intersec team to provide innovative content areas, awareness sessions, and workshops, along with fostering start-ups in the cyberspace. Our strategic partnership with Messe Frankfurt Middle East and Intersec is vital for promoting cyber awareness in the UAE and driving global growth in the security sectors."

Cybersecurity will be extensively discussed during the 2025 Intersec Security Leaders' Summit (ISLS), exploring topics such as the next generation of hackers, building cybersecurity resilience, navigating the future of deepfakes and misinformation, and ransomware myths and the gig economy inspiration.

The conference will host leading global experts, including Fawaz AlSumaim, Head of Cyber Crime Division, Ministry of Interior Bahrain; Anoop Paudval, Head of Information Security Governance, Risk and Compliance, Gulf News, Al Nisr Publishing; and Majid AlShowdari, CyberSecurity Leader, Confidential Government.

Meanwhile, the newly launched CISO Business Briefing, hosted as part of the Cyber Security sector at Intersec 2025, will investigate the key trends, threats and opportunities in information security, bringing together the region's top Chief Information Security Officers (CISOs) and security heads from diverse industries and provide a platform to identify how they are enhancing an organisation's resilience to protect against emerging threats.

Intersec 2025 is expecting 30% more cybersecurity exhibitors compared to the 2024 edition, showcasing industry-specific solutions from leading companies such as Dell, Ingram Micro, Genetec, Axxon Soft, Ipsotek, Intelligent security systems, Regula, Segate and Lensec. A notable feature, the Start-up zone, will be dedicated exclusively to cybersecurity, presenting cutting-edge solutions and fostering connections among global experts and innovators.

Held under the patronage of His Highness Sheikh Mansoor Bin Mohammed bin Rashid Al Maktoum, the 26th edition of Intersec encompasses five broad product sections: Commercial & Perimeter Security, Fire & Rescue, Safety & Health, Cyber Security, and Homeland Security & Policing, offering tailored solutions for each industry segment under one roof. Under the theme of 'Mapping the future in safety, security & fire protection', the exhibition will host 1,200 exhibitors from more than 60 nations and expects more than 42,000 trade visitors from around the world. ∎

AI and Interconnectivity propel Southeast Asia's $6.1 billion digital health market to new innovation frontiers

GITEX Global, the world's largest tech and start-up event, hosted in Dubai, has announced the creation of GITEX DIGI_HEALTH 5.0 Conference, the most anticipated AI and digital health expert gathering at the opportune inflection phase of the global healthcare evolution.

GITEX DIGI_HEALTH 5.0 Conference, organized by KAOUN International, the international organizing office of Dubai World Trade Centre (DWTC), shall be hosted alongside MEDICAL FAIR ASIA in Singapore, organized by Messe Düsseldorf Asia.

The showcase will feature 1,000 exhibitors from 62 countries and regions, with a Community Care dedicated area and a Start-Up Park presenting highly innovative companies.

The inaugural GITEX DIGI_HEALTH 5.0 Conference will convene a premier line-up of international speakers including dominant future health influencers and practitioners in Digital Health, Artificial Intelligence, Telemedicine, Consumer Health, and Patient Care, bringing together government leaders, global executives, investors, policy-makers, and innovators.

This strategic partnership between GITEX and MEDICAL FAIR ASIA, globally the two most influential industry event brands in the most transformational sectors of healthcare, medtech, digital and AI applications, catalyses Asia's collective dynamics in forging a world class healthcare ecosystem underpinned by digitalization.

"We are delighted to see this co-location with GITEX DIGI_HEALTH 5.0 Conference in Singapore," said Gernot Ringling, Managing Director of Messe Düsseldorf Asia. "This collaboration complements our event greatly, with MEDICAL FAIR ASIA's strengths as a regional sourcing and networking event and GITEX's expertise as the world's largest tech event brand.

"At GITEX DIGI_HEALTH 5.0 Conference and MEDICAL FAIR ASIA, the medical, healthcare, and tech industries can come together to discover the latest digital health solutions and engage in meaningful discussions with leading experts and innovators. With its leadership in biotech and health R&D, Singapore provides the ideal backdrop for this partnership in advancing healthcare and driving the future of digital health across Asia."

The expertly curated program will explore the opportunities in a hybrid healthcare future, where AI, IoT, predictive data analytics, and interoperability are transforming patient care systems. Talks and panel discussions will also cover the evolution of telemedicine, the integration of AI diagnostics, VR/AR consultations, and remote monitoring, and the impact of emerging technologies such as blockchain and Web3 on the healthcare sector.

Under the overarching theme of Implications of AI and Digitalization in Disrupting Healthcare - The immersive 2-day conference featuring global speakers from over 12 countries will highlight the integration of these technologies promises to disrupt traditional healthcare models, making them more efficient and accessible, with a keen focus on the region's readiness and adaptability on how swiftly this transformation can take place.

Home to nearly 60% of the world's population, the region's digital health market is expected to generate US $66.97 billion revenue in 2024 and reach a projected market value of US $99.57 billion by 2029, according to analysts Statista. The rapid digitization of health services is leading industry sectors to experience significant growth.

Trixie LohMirmand, CEO of KAOUN International and organizer of GITEX worldwide, said: "Despite the broader worldwide downturn in funding, regional startups have attracted significant investments particularly in the digital future health sector where accessible and high accuracy diagnostic medical interventions and solutions are the priorities of future economies.

"The creation of GITEX DIGI_ HEALTH 5.0 Conference in Singapore, hosted with MEDICAL FAIR ASIA, shall now rally the region's healthcare community of policy makers, practitioners, academia, investors, and innovation disrupters to collectively leverage the new phenomenal of deeptech to keep pace with a digital industry that's reconstructing the healthcare industry."

Harnessing Asia's Health Tech Potential to the World

GITEX DIGI_HEALTH 5.0 Conference in Singapore will land in the region to expand and connect the knowledge and expertise of public and private organizations in tech and healthcare. Joining the stage this year are some of the most influential representatives from governments and global entities.

Headliners include Sutowo Wong, Director of Data Analytics at the Ministry of Health Singapore; Dr. Pauline Erica Tay, Director of National Health Innovation Centre Singapore (NHIC); Dr. Ossama ElHassan, Head of E-Health at the Dubai Health Authority from the United Arab Emirates; and Hanna Burkhardt, Head of UNICEF's Venture Fund in Sweden.

Among the innovators, founders, and digital health leaders confirmed are WeiWei Hong, Director of the healthcare network SingHealth; Shravan Kumar, Co-Founder and CEO of the Healthcare solutions platform SpeedDoc from Singapore; Chwee Foon Lim, CEO for Asia-Pacific at the world's largest exoskeleton company Ekso Bionics, headquartered in the United States; Dr. Ramon Varughese, Chief Medical Officer of Qualitas Health from Malaysia; and many more.

Accessing a Global Tech Hub with the World's Largest Event Brand

GITEX DIGI_HEALTH 5.0 Conference in Singapore will seamlessly integrate the Asian health tech industry into GITEX's global brand, the world's most trusted tech ecosystem, with its powerhouse events in Dubai, Singapore, Berlin, Morocco, and Nigeria. ⊤

e& enterprise

e& enterprise successfully completes $60m acquisition of GlassHouse, expanding into Türkiye

e& enterprise, the digital transformation arm of e&, announced the successful completion of its US$ 60 million acquisition of GlassHouse, a leading Türkiye-based provider of managed cloud, business continuity and SAP Infrastructure services.

The acquisition, originally announced in June this year, strengthens e& enterprise's capabilities in private cloud and managed services, bolstering its overall value proposition with the addition of SAP capabilities and vertical expertise within the banking and financial services sector – supported by GlassHouse's deep understanding and specialist skills in this space. It also marks a significant milestone in e& enterprise's international growth strategy, following successful market entries into Saudi Arabia in 2019, Egypt in 2023, and now Türkiye, Qatar and South Africa. This acquisition also expands e& group's

operational footprint to 34 markets.

Now part of the e& enterprise family, GlassHouse is well-positioned for growth with a strategic focus on augmenting e& enterprise's SAP capabilities in both the UAE and Saudi Arabia. As the new wholly-owned subsidiary of e& enterprise, GlassHouse will retain its brand identity and continue to operate independently.

Salvador Anglada, Chief Executive Officer, e& enterprise, said: "We are thrilled to welcome GlassHouse into the e& enterprise ecosystem as we continue to bolster our value proposition by reinforcing our capabilities, adding vertical expertise, and expanding into high-growth markets. This acquisition is another bold step in our journey to becoming a regional leader in end-to-end digital transformation."

Alp Bağrıaçık, CEO, GlassHouse, said: "I am

both proud and delighted to announce the successful integration of our company into the e& enterprise ecosystem. By harnessing e& enterprise's robust portfolio, we will provide our customers with cutting-edge security solutions and innovative strategies to accelerate their digital transformation journey."

Founded in 2004, GlassHouse has established itself as a prominent player in the cloud services sector. It offers managed cloud, business continuity, on-premise backup, private sovereign cloud, and SAP Infrastructure services to over 2,000 enterprises in select geographies. The company boasts a robust presence in the financial services sector, serving nine of the top 10 banks in Türkiye. With over 150 professionals operating across offices in Türkiye, South Africa, and Qatar, GlassHouse is a trusted partner for industry giants such as Microsoft, Dell, and SAP. ∎

CRA to cease of 3G mobile services in Qatar by end of 2025

Ashraf Siddiqui

The Communications Regulatory Authority (CRA) issued a decision to mobile service providers, following consultation with stakeholders, mandating the cessation of third-generation mobile telecommunications services (IMT-2000) in the State of Qatar by December 31, 2025.

Under CRA's decision, Ooredoo Qatar and Vodafone Qatar are obligated to cease third-generation services by the specified deadline. This is aimed at optimum utilization of current radio spectrum resources to support and enhance the performance of 4G/LTE4 and

5G networks. This initiative aligns with CRA's efforts to gradually retire the outdated legacy technologies, allowing the two telecom service providers to direct their investments towards the development and expansion of 4G and 5G networks. This enhances growth in Qatar's telecommunications sector, benefiting all stakeholders and contributing to diversifying the local economy, supporting Qatar National Vision 2030.

Additionally, as part of this context, CRA has decided to immediately ban the import of mobile phones that support only second and third-generation technologies, while approving devices compatible with 4G/Voice over LTE

(VoLTE) technology that meet required standards and have obtained type approval certificates from CRA.

Through these measures, CRA reaffirms its commitment to ensuring consumers receive the best services. Developing 4G and 5G networks contributes to higher data speeds, lower response times, and greater capacity to meet the growing demand for mobile data services, thereby enhancing consumer experience and supporting the Third National Development Strategy 2024-2030, which prioritizes improving residents' quality of life and delivering services that meet global standards. ∎

ITU publishes updated global treaty to optimize radio spectrum management and advance technological innovation

2024 edition of the ITU Radio Regulations ensures a stable regulatory environment for innovative radiocommunication services

The International Telecommunication Union (ITU) released an updated version of the Radio Regulations, the international treaty governing the global use of radio-frequency spectrum and satellite orbits. Entering into force on 1 January 2025, the 2024 edition of the ITU Radio Regulations is the result of a four-year process that culminated in four weeks of negotiations during the World Radiocommunication Conference (WRC-23), hosted last year in Dubai, United Arab Emirates.

The ITU Radio Regulations govern the global use of radio-frequency spectrum and satellite orbits for all radio services, systems and applications, including fixed and mobile broadband, satellite systems, sound and TV broadcasting, radionavigation, meteorological monitoring and prediction, space research and Earth exploration, amateur radio services and other topics.

"The 2024 edition of the Radio Regulations marks a significant milestone in the world of technology," said ITU Secretary-General Doreen Bogdan-Martin. "As technological progress advances and the demand for spectrum grows, the international treaty continues to evolve to accommodate new radiocommunication services and applications, minimize interference between services, and ensure equitable access to this essential resource."

The treaty serves as the cornerstone of international radio frequency management,

ensuring that spectrum allocations keep pace with the rapidly evolving technological landscape and meet the needs of modern communication systems.

Treaty provisions also direct how radio equipment and systems must operate to ensure efficient and effective coexistence among various services worldwide and anywhere in space, optimizing the usage of today's increasingly crowded airwaves.

The 2024 Radio Regulations identifies new spectrum resources to support technological innovation, deepen global connectivity, increase access to and equitable use of space-based radio resources, and enhance safety at sea, in the air, and on land.

"The updated Radio Regulations is the result of hard-won agreements reached at WRC-23 and a testament to the unwavering spirit of cooperation and compromise among all of our members to negotiate timely changes to the international treaty," said Mario Maniewicz, Director of the ITU Radiocommunication Bureau. "The updated treaty provides a framework for national spectrum management that aligns with international standards and guarantees the stable, predictable regulatory environment that is essential for the development of innovative radiocommunication services for all."

Global regulation of the radio spectrum

began with the signing of the first International Radio Telegraph Convention in Berlin on November 3, 1906, after 30 states came together and agreed on key maritime communications and safety provisions and established "SOS" as a globally recognized distress signal.

Since then, the Radio Regulations have evolved into a four-volume treaty of more than 2,000 pages. The treaty establishes the rights and obligations of ITU's 193 member states and now covers more than 40 different radiocommunication services, spanning frequencies from 8.3 kilohertz (kHz) to 3000 gigahertz (GHz).

The ITU Radio Regulations facilitate equitable access to and rational use of the radio-frequency spectrum and geostationary satellite orbits, both globally shared and limited natural resources; support the efficient and effective operation of all radiocommunication services; and, as necessary, facilitate the introduction and regulation of new radiocommunication services and technologies.

The international coordination mechanisms enshrined in the ITU-managed treaty promote its objective to ensure the availability of the frequencies provided for distress and safety communications and help prevent or resolve cases of harmful interference between the radio services of different administrations. ∎

5G-enabled FWA devices now mainstream, GSA 4G/5G FWA Forum CPE vendor survey reveals

India and North America driving global growth in 5G FWA CPE shipments

The GSA 4G/5G Fixed Wireless Access Forum has released the findings of its annual Fixed Wireless Access (FWA) CPE market survey, revealing that shipments of FWA CPE are expected to grow 23% to reach 37.5 million units in 2024. Growth of 5G-enabled FWA CPE shipments means they are expected to account for 42% of shipments in 2024 compared with 34% in 2023. By comparison, 4G FWA CPE shipments fell 5% between 2022 and 2023. Fewer than half of respondents will introduce a new 4G CPE product this year.

"This year's Fixed Wireless Access CPE market survey proves beyond doubt that 5G FWA has hit the mainstream. Not only has the growth in vendor shipments swung firmly behind 5G-enabled CPE devices but operators are turning to FWA as the key driver for monetizing their 5G network investments. We see operators and vendors continue to work hand-in-hand on new innovations such as 5G standalone, Redcap, millimetre-wave and flexible self-install outdoor CPEs that will support the growth acceleration of 5G fixed wireless access services globally," said John Yazlle, Vice Chairman of the GSA 4G/5G FWA Forum.

Key findings of the 2024 GSA Fixed Wireless Access CPE Market Survey include:

• In 2024, shipments of FWA CPE are expected to grow 23% to reach 37.5 million units. Reported total CPE shipments in 2023 amounted to 30.4 million from 30 respondents, a 2% increase from 2022.

• 5G-enabled FWA shipments became mainstream, reaching 10.2 million in 2023. The growth of 5G FWA CPE shipments is expected to accelerate further, accounting for 42% of shipments in 2024 compared with 34% in 2023. By comparison, 4G FWA

CPE shipments fell 5% between 2022 and 2023. Less than half of respondents will introduce a new 4G CPE product this year.

• Various regions drove growth of 5G FWA shipments in 2023, in contrast with 2022, when most shipments were concentrated in North America. India is now contributing to this upward trend in shipments, with 86% of those reported being 5G-enabled, followed by North America (65%) and the rest of Asia–Pacific (39%).

• Shipments are still dominated by indoor CPE (60%), followed by battery-operated hot spots (25%) and outdoor CPE (15%). Within outdoor CPE, flexible self-install devices are expected to grow from 1.6 million to 1.9 million despite their share declining slightly from 36% to 34% of shipments between 2023 and 2024.

• Shipments of 5G devices with millimetre-wave (mmWave) capability rose 63% between 2022 and 2023 and are forecast to grow 22% by 2024 but remaining at under 10% of all 5G shipments.

• When it comes 5G standalone, 60% of shipments in 2023 supported the technology. These are expected to grow in 2024, reaching 8.9 million units, up from 6 million in 2023.

• There is strong interest in RedCap, with 63% of respondents stating they will be introducing a 5G RedCap CPE in 2024.

• According to 40% of respondents, 5G CPE will reach price parity with its 4G counterpart by 2026, a year later than in last year's survey.

• Most respondents claim that window-mounted CPE and self-installation apps are growing; flexible indoor and outdoor CPE

are set to remain flat; and hybrid fibre/DSL CPE will decline.

• More than half of respondents do not expect component shortages but do anticipate inflationary pressures in 2024.

"The purpose of the GSA 4G/5G FWA Forum is to bring together the FWA ecosystem and educate the industry about the FWA market as currently there is a lack of market definition and consensus on the volume of FWA device shipments and installed base. This unique survey plays an important role in providing facts and insights into the true state of the fixed wireless access market and how it is evolving and growing globally," said Julien Grivolas, Chairman of the GSA 4G/5G FWA Forum.

The survey results present the aggregate answers of 30 CPE vendors that together form a significant representation of the 3GPP-based 4G/5G FWA device market. All companies are members of the GSA 4G/5G FWA Forum and were surveyed on a range of topics including shipments, market trends, form factors and device features, current and future.

The GSA FWA CPE market survey was first conducted in 2021. The data for the latest annual GSA Fixed Wireless Access CPE market survey was collected between May-June 2024. Participants in the 2024 survey included: Airgain, Asiatelco Technologies Co, Askey, BEC Technologies, Chanhong, Compal, Da Ta Technologies, DZS (formerly Casa Systems), Elsys, Gemtek, Gongjin Mobile Communication/T&W, Green Packet, Huawei, Intelbras, Jaton Technology, MeiG Smart Technology, Nokia, Notion InfoTech, Shenzhen Jointelli, Smawave Technology, StartUSA, Tigercel, Tozed Kangwei, Vantiva, Wavetel, WNC, Xiamen Four-Faith, YaoJin Technology, ZTE and Zyxel. ∎

Verizon partners with Skylo to launch satellite-powered messaging for remote areas

Verizon and Skylo have teamed up to launch a commercial direct-to-device messaging service for Verizon customers so they can stay connected wherever they are. Starting this fall, customers on certain smartphones have access to emergency messaging and location sharing even when a terrestrial cellular network is not available. Coming next year, Verizon will offer the ability to text anywhere via satellite for customers with select devices.

"Verizon has been driving innovation in the use of supplemental satellite capabilities for years using satellite connections for cell tower rapid deployments, emergency response and temporary solutions. We are encouraged by the progress being made in satellite to device communications for consumers and are equally excited to be driving technical innovation trials in the space of satellite IoT solutions," said Srini Kalapala, Senior Vice President of Technology and Product Development for Verizon.

Skylo utilizes dedicated, licensed mobile satellite spectrum for connectivity which avoids network interference with terrestrial signals and ensures ubiquitous coverage for customers in rural or rugged areas when low population density, technical challenges, and economic viability make building a cellular network infeasible. Verizon is the first mobile carrier worldwide to commercially launch supplemental smartphone connectivity on Skylo's non-terrestrial satellite network and the first mobile carrier to launch a commercial direct-to-device service offering.

"Our work with Verizon strengthens our belief in network convergence between satellite and cellular, and now this vision is a reality today for both consumers and enterprises. Satellite access isn't just about reaching out when you're in

trouble; it's connectivity for staying in touch with your loved ones wherever they are. We are excited to partner with the carrier known globally for its powerful performance and reliable service as we bring a new level of connectivity from space," said Parthsarathi Trivedi, CEO & co-founder of Skylo."

Driving future satellite innovations for enterprise customers

Verizon has been a leader in driving IoT offerings in 4G with Narrow Band IoT and driving emerging IoT offerings using RedCap technologies. In collaboration with Skylo, Verizon has engaged in research and development of satellite IoT technology leading to engineers successfully demonstrating how a Verizon-enabled IoT device can roam onto a satellite network when out of range of the terrestrial cellular network providing enhanced geographic coverage for IoT devices.

"Verizon's network boasts an exceptionally large terrestrial cellular network and covers more than 99% of the population in the United States. However, there are occasional enterprise needs for IoT devices in places where people don't live or regularly visit. Satellite IoT in combination with Verizon's terrestrial assets creates the

perfect combination for IoT solutions in the most remote parts of the country and over land, air and sea without having to use a separate physical device," said Kalapala.

This satellite IoT roaming capability is particularly critical for IoT and has the potential for numerous applications across various industries, including transportation, agriculture, maritime, environmental monitoring, and asset tracking. For example, in agriculture, satellite IoT can be used to monitor cattle movements, crops, soil quality, and meteorological conditions in remote areas where terrestrial connectivity is not typically needed. In asset tracking, the ability to roam on satellite networks will allow for accurate tracking and condition evaluations in real-time even in the middle of the ocean.

These solutions, which require lower-complexity, low throughput, energy-efficient IoT devices, are ideally suited for the satellite roaming arrangement. In Verizon and Skylo's recent proof-of-concept, the companies were able to complete a connection using a Verizon enabled IoT cellular device across both Verizon's cellular network and Skylo's satellite network, proving the interoperability and demonstrating the value of this seamless roaming capability. ∎

Viasat announces next evolution of its L-band tactical satellite service

Viasat has announced the next evolution of its award-winning L-band tactical satellite service, L-TAC, delivering new features that allow service on-demand – when and where users need it. The L-TAC service is delivered through Viasat's worldwide L-band network, connecting radio users and command centers worldwide using the tactical radios' native waveforms, encryption and a secure terrestrial network.

The newly evolved L-TAC solution will automate the service's ordering and provisioning system and deliver an automated L-TAC channel assignment capability for more effective resource allocation. This solution features a web portal that will allow end users or Viasat partners to order or schedule L-TAC service. This enhanced capability will enable users to request and receive

service on-demand in specific beams and over geographic regions when and where they need to operate. As a result, global government customers can order immediate service to areas of operation and can schedule their resources more efficiently.

Furthermore, U.S. government customers now also have access to a radio frequency over Internet protocol (RFoIP) solution that supports remote monitoring of L-TAC channels. This enables L-TAC user nets, or radio nets, to be remotely accessed worldwide over IP, connecting users back to their headquarters, forward operating bases or other remote sites.

Government and military users have traditionally relied on line-of-sight Ultra High Frequency (UHF), Very High

Frequency (VHF) and UHF SATCOM systems for tactical communications without practical alternatives when those services are unavailable. The Viasat L-TAC service provides this alternative and is complementary to existing UHF, VHF and UHF TACSAT radios, allowing users to leverage the same security-accredited equipment with advanced encryption over L-band satellite connections via interoperable waveforms.

"Our award-winning L-TAC solution is a trusted option for tactical, beyond line-of-sight communications with thousands of units deployed. We recognize that our government customers' missions and requirements are always evolving so it is our responsibility to never stop innovating to meet those needs," said Susan Miller, President, Viasat Government. **T**

Liquid and Globalstar partner to deliver high–speed 5G across MEA and Gulf

Liquid Intelligent Technologies (Liquid) has partnered with Globalstar to deliver advanced 5G connectivity solutions across Africa, the Middle East (MEA), and the Gulf.

Strive Masiyiwa, Founder and Chairman of Liquid Intelligent Technologies said, "I'm really excited by the connectivity solutions now emerging from breakthroughs in 5G private networks technologies. With this technology we are now able to provide services to large businesses like mines with their own 5G private networks that can also enable NextGen services like AI; this is huge."

The partnership will provide Liquid with exclusive rights in the Gulf, Middle East and Africa regions to sell and distribute Globalstar's XCOM RAN

private networks 5G access solution. This innovative technology that enhances the 5G experience also supports AI-driven applications, and is set to revolutionize the mining industry in Africa and high-end markets in the Middle East and Gulf regions.

Liquid will provide comprehensive customer support for Globalstar's products and services, including technical support and warranty services. The collaboration also includes potential expansion to Globalstar's satellite, Band n53 spectrum and IoT solutions on a non-exclusive basis.

"Globalstar is pleased to join in partnership with Cassava and Liquid, a group of well-respected leaders with a sharp focus on technology deployments," said Dr. Paul E.

Jacobs, CEO of Globalstar.

"The regions where Liquid is a leader are large and growing markets for our technologies which enable safe automation and remote control of mobile equipment in high value environments.

"Our 5G XCOM RAN product fundamentally differs from traditional wireless solutions and enables mission critical high performance wireless applications. Combining XCOM RAN with the globally licensed Globalstar n53 midband spectrum, creates a very unique offering for private and enterprise 5G networks. Together, Liquid and Globalstar will accelerate advanced wireless technology deployments in Africa, Middle East and Gulf regions," Dr. Paul added. **T**

Eutelsat and Bayobab collaborate on OneWeb constellation for fixed services throughout Africa

Eutelsat Group and Bayobab, a subsidiary of MTN Group, have announced a multi-year agreement for Low Earth Orbit (LEO) capacity on Eutelsat's OneWeb constellation. This collaboration aims to address the connectivity needs for enterprises and cellular backhaul, providing reliable solutions to enhance network performance and customer experience across the continent.

Bayobab, Africa's leading digital and infrastructure service provider, will leverage Eutelsat's OneWeb constellation to deliver fixed connectivity services. By improving coverage in rural areas, these innovative satellite solutions will provide high-quality connectivity and reduced latency. The roll-out roadmap will see implementation completed across the continent by December 2024, with services already available in four African countries.

Cyril Dujardin, Co-President of the Eutelsat Group Connectivity Business Unit, said: "We are proud to count Bayobab and the broader MTN Group amongst Africa's early adopters of the Eutelsat/OneWeb LEO constellation. This partnership underscores the commitment of both Eutelsat and Bayobab
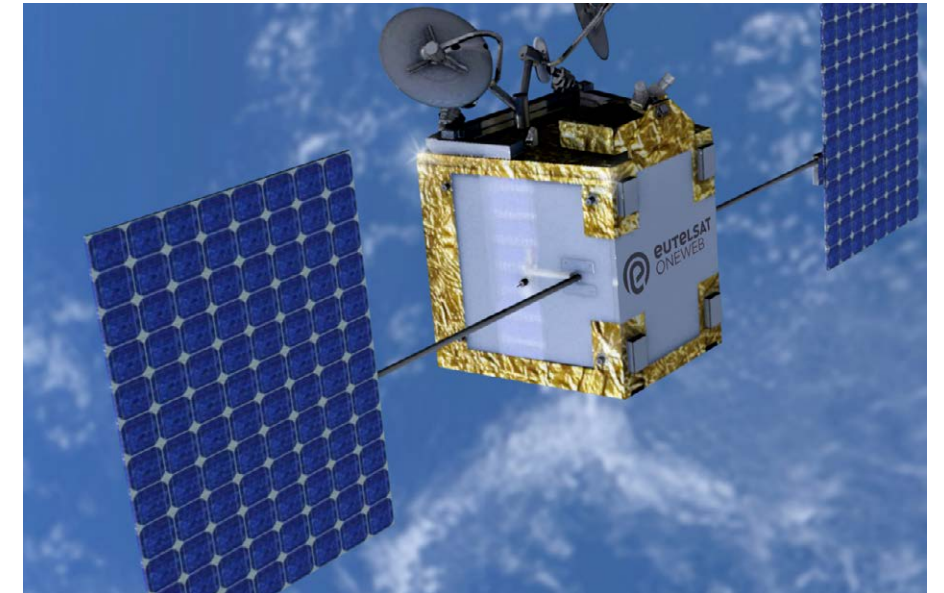
to drive digital inclusion, and the pertinence of innovative satellite solutions to achieve this aim, notably the unique properties of ubiquitous, low latency LEO capacity."

Frédéric Schepens, Bayobab's Chief Executive Officer, said: " At Bayobab, we're passionate about being at the forefront of harnessing technology to empower people and businesses across Africa.

Our partnership with Eutelsat and the integration of OneWeb's LEO satellite services into our solutions is a testament to this commitment. This collaboration brings cutting-edge digital connectivity to even the most remote corners of the continent and reaffirms our promise of 'Connecting Africa' – a promise rooted in partnership and driven by a vision of a digitally inclusive future." **T**

Eutelsat and Cable Color renew agreement for video broadcast services in LATAM

Eutelsat Group and Cable Color have signed a new multi-year agreement renewing capacity for video broadcast services on EUTELSAT 117 West A satellite.

Cable Color, a prominent cable operator in the region, is a long-standing customer of Eutelsat, and this new agreement underscores its continued confidence in the quality of broadcast services provided.

The 117° West location is the premium TV neighborhood for Latin America, offering

pan-regional distribution of major networks and content providers. 300 TV channels, 50 in HD, are currently broadcast to around 110 million TV homes, and a strong cable head-end penetration includes over 1900 cable head-ends in Latin America and the Caribbean. 117° West is also a growing free-to-air TV neighborhood with 100 TV channels broadcasting in the clear, including channels from key regional public and private broadcasters.

On the new agreement, José Ignacio González-Núñez, Eutelsat Group Senior

Regional VP, Media Sales Americas, said: "It has been a privilege to partner with Cable Color as they remain one of our most valued customers. We are honored to host their services on our premium E117WA satellite, which plays a vital role in delivering video content across Latin America."

Stefano Racciatti, Director General of Cable Color, said: "We are delighted to be able to rely on our long-standing partner, Eutelsat, to provide high quality, dependable service continuity for our customers throughout of footprint." **T**

Bridge Technologies launches upgraded satellite module VB278

As part of a wider range of upgrade modules being made for their existing VB120 and VB220 monitoring probe lines, Bridge Technologies has launched the VB278 module, which will expand the extensive capabilities of both base probes to incorporate satellite contribution and direct-to-home distribution monitoring, supporting the DVB-S, DVB-S2 and DVB-S2X modulation standards.

The base VB120 and VB220 accommodate a range of network standards, including IP unicasts and multicasts, OTT/ABR streams, and a whole range of RF formats, as well as SRT and ASI, offering key monitoring features such as TR 101 290 analysis, IP multicast monitoring, HLS/M-DASH monitoring, TS recording, RF analysis and SRT relay operations. SRT (Secure Reliability Transport) is of particular interest, because it allows for received RF streams to be converted into an IP/UDP stream, which is then made available via the SRT standard. This framework makes it possible to gain central access to streams that would otherwise be hard to access, thus giving engineers greater insight, diagnostic capability and control over their network.

Through the addition of new VB278 module, these probes gain up to four independent RF L-band inputs, which allow for the specific monitoring and analysis of the RF streams found in satellite contribution and direct-to-home distribution infrastructure. With each VB278 module, one input is activated by default, and the other three through software license key. Two VB278 modules can be added to any single chassis, therefore allowing for up to eight independent RF inputs, and through the use of round-robin operation, a significantly higher number of transponders can be monitored overall.

Alongside support for DVB-S, DVB-S2 and DVB-S2X, the VB278 supports QPSK, 8PSK and 8/16/32APSK modulation standards, along with DirecTV and AMC mode support. Configuration of the probe for symbol rate detection – requiring only the input of the frequency by the user – adds to the intuitive and easy-to-use nature of the module, an element common to all Bridge probes. Moreover, the VB278 incorporates a range of monitoring metrics and graphs specific to satellite signal analysis, including Modulation Error Rate (MER), Signal to Noise Rate (SNR), Error Vector Magnitude (EVM), Constellation Diagrams, RS Packet Error, Trend RF graphs, Pilot detection and Energy per information bit/transmitted bit/symbol to noise power spectral density ratio. These are all presented using clear, intuitive, at-a-glance metrics which inform in-the-moment decision making, along with longer term, strategic planning, both in terms of network engineering and business development. All of this data can be accessed from anywhere in the world through any HTML5-enabled web browser.

In addition, the VB278 is future-proofed through the incorporation of an expansion port for hardware add-on functionality, which in the near-future will include a Software-Defined-Radio (SDR) plug-on block which allows for a range of added functions, including waterfall spectrum analysis and I/Q spectrum triggered recording. These expanded functionalities

will have importance for areas such as signal interference detection and intermittent fault analysis, and represent Bridge Technologies' commitment to increasing the range, flexibility, functionality, versatility and capacity of their core monitoring solutions, providing for broadcasters who maintain complex, hybrid and evolving networks.

Speaking of this most recent addition, Chairman Simen K. Frostad said: "Our commitment to IP-based broadcast – a vision we've held for 20 years - has been vindicated in the broadcast market. But even bigger than that is our commitment to monitoring in general, regardless of platform. Effective monitoring should constitute the backbone of any network delivery solution, especially those who are taking legacy components and beginning to hybridise them with IP-based standards".

He continued: "That is why we have developed an extensive range of add-ons for our core VB120 and VB220 probes, including the VB273 for redundancy and the VB258 for the monitoring of DVB-T/T2, ATSC1.0/ATSC 3.0, DVB-C, QAM-B and ISDB-T formats. With these options, alongside the VB278 for satellite, broadcasters are able to create the perfect custom solution, regardless of the complexity and range of their broadcast infrastructure". ◼

Bridge's full range of monitoring solutions will be on display at IBC2024, Booth 1.A71.

Thaicom reports Q2/2024 results

Thaicom announced its financial results for Q2/2024, reporting revenue of Baht 638 million, an increase from Baht 609 million in Q1/2024 (QoQ) and Baht 636 million in Q2/2023 (YoY). This growth was mainly driven by increased revenue from satellite and related services, particularly from domestic clients. Additionally, the utilization rate for the Company's conventional satellites, which provide services under telecommunication licenses via THAICOM-7 and THAICOM-8, reached 62%, marking a consistent upward trend for four consecutive quarters.

Despite reporting a net profit of Baht 63 million in Q2/2024—a decrease compared to Q1/2024 and Q2/2023 due to net foreign exchange gains in Q1/2024 and a one-time compensation from a dispute settlement in Q2/2023—core profit[1], which excludes these non-recurring items, showed significant growth. Core profit reached Baht 49 million, a 308% increase from Q1/2024 (QoQ), driven by higher revenue from sales and services. This highlights the Company's agility in addressing market demand and expanding its customer base.

In Q2/2024, the Company's satellite business generated Baht 69 million in core profit, excluding the share of profit/loss from the telecommunications business, surpassing normal core profit by Baht 20 million. This underscores the robust profitability of the core business, with a 30% (QoQ) growth from Baht 53 million in Q1/2024.

Thaicom has further solidified its success in leveraging its satellite expertise into the space technology sector by utilizing Earth observation satellite data, such as satellite imagery, in conjunction with Artificial Intelligence (AI) and Machine Learning (ML) technologies. This effort led to the development of the "CarbonWatch" platform, a tool for assessing carbon sequestration in forests, certified by the Thailand Greenhouse Gas Management Organization—an initiative pioneering in

Thailand and ASEAN.

CarbonWatch will enable more efficient, accurate, fast, verifiable, and cost-effective carbon assessments across large forest areas, surpassing traditional methods. This platform is part of the Company's space technology services under Earth Insights, catering to various customer needs. Thaicom remains committed to sustainability and environmental, social, and governance (ESG) principles, which led to the Company receiving the Commended Sustainability Award and the SET ESG Ratings AAA in 2023. These accolades underscore the Company's role in fostering genuine national sustainable development. Following the certification of the CarbonWatch platform, it will be deployed in the community forests of the Mae Fah Luang Foundation and other relevant organizations to drive the nation towards carbon neutrality and net-zero greenhouse gas emissions.

Additionally, the Royal Thai Air Force (RTAF) has partnered with Thaicom in a Memorandum of Understanding (MoU) for collaboration in aerospace technology

development. This partnership aims to research and develop aerospace and related technologies to enhance the RTAF's mission capabilities, safeguard Thai airspace, and promote sustainable self-reliance in the defense industry. The agreement focuses on three key areas: 1) Unmanned aerial vehicle systems integrated with space technology to expand aviation capabilities across the RTAF's operational areas, 2) Cutting-edge small satellite technology to enhance the RTAF's military operations through space utilization, and 3) Rocket launch vehicle technology, paving the way for future military spaceports and strengthening national security.

In Q2/2024, revenue from the Lao Telecommunications Public Company (LTC) increased both QoQ and YoY, benefiting significantly from the tariff restructuring for telecom services implemented by the Ministry of Telecommunication and Communication of the Lao PDR. However, a greater foreign exchange loss was incurred due to the depreciation of the Kip against the US Dollar compared to Q1/2024 (QoQ). ◼

GLOBAL ICT, TELECOM & SATCOM EVENTS 2024-25

13-16 September 2024	14-18 October 2024	19-20 November 2024
IBC	SuperBridge	TELECOMSWORLD Asia
Amsterdam Netherlands	Dubai, UAE	Bangkok, Thailand

01-02 October 2024	15-17 October 2024	03-05 December 2024
GSMA M360 APAC	capacity EUROPE 2024	MEET ICT BAHRAIN BiTEX 2024
Seoul, South Korea	London, UK	Manama, Bahrain

08-10 October 2024	04-07 November 2024	03-06 December 2024
NETWORK X	GLOBAL MILSATCOM 2024	atf ASIA TV FORUM & MARKET
Paris, France	London-UK	Singapore

13-16 October 2024	05-07 November 2024	03-06 March 2025
EXPAND NORTH STAR	APSCC Asia-Pacific Satellite Communications Council	MWC GSMA
Dubai, UAE	Bangkok, Thailand	Barcelona, Spain

14-18 October 2024	14-18 November	06-08 May 2025
GITEX GLOBAL	Africa Com	GISEC GLOBAL
Dubai, UAE	Cape Town South Africa	Dubai, UAE

14-18 October 2024	18-19 November 2024	13-15 May 2025
GLOBAL DEV SLAM	GSMA M360 MENA	CABSAT
Dubai, UAE	Doha, Qatar	Dubai, UAE

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