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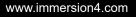
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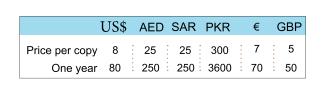
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Contents







Interviews

26 5G will be the main enabler of Oman's Digital Transformation to support the 2040 vision

Dr. Ali Al Hashmi, General Manager Networks at Omantel

36 FinTech in Pakistan is flourishing like anything

Ahmed Shahab Nasir - CTO JazzCash, Pakistan

Cybersecurity

- 29 UAE's Cybersecurity Council to collaborate with Huawei in strengthening ecosystem's capabilities
- 40 Building "Cybersecurity Readiness" culture critical, experts warn at GISEC Global 2022
- 45 Microsoft experts underline the need for Zero Trust approach in the hybrid workplace at GISEC 2022

Satellite Communications

- 38 Thaicom, SpaceBridge and WTD to provide High-Speed BB Connectivity in Indonesia
- 39 Airbus showcases innovation and highlights its commitment towards localisation at Saudi Arabia's World Defense Show



Telecommunications

- 18 e& reports consolidated net profit of AED 9.3b for FY2021, a 3.2 % increase year on year
- 43 Consortium comprising e&'s E-Vision and ADQ to acquire a majority stake in STARZPLAY ARABIA
- 49 NuRAN and MTN in partnership for 150 sites in Namibia for rural 4G and 2G

News

- 21 Huawei and du sign MoU on MEC Innovation
- 28 stc to host Mobile 360 in Riyadh
- 31 The SAMENA Council Leaders' Summit 2022 to congregate multi-industry leaders in Dubai
- 44 State of Jalisco in Mexico increased connectivity coverage with Infinet Wireless

Reports

- 12 Huawei unveils its latest products and solutions at MWC Barcelona
- 22 stc's participation in MWC 2022, Barcelona

Editor's Note



Dear Readers,

Welcome to the latest edition of Teletimes International.

This edition of Teletimes features the Formula1 race in Saudi Arabia - powered on the network side of things by stc. If you look in detail, it is surprising as to how much real-time data is being shared and utilized during a race with the network provider being the backbone of all this data transfer. The support for the Formula1 event is part of a very active CSR program through which stc has been supporting various initiatives and activities such as the Saudi Cup (horse racing) earlier this year. As one of the leading telecom players in the world, stc sets a high standard for corporate social responsibility for operators and corporates all around the world.

This edition of Teletimes features two key interviews. The first, with Dr. Ali Al Hashmi, General Manager Networks at Omantel, who talks about the role of 5G in the Digital Transformation of Oman and the second, with Shahab Nasir, CTO of JazzCash who talks about the flourishing FinTech sector in Pakistan.

Besides the interviews, I would definitely recommend two editorials; "5G and Cloud: Accelerating Telecom ToB Business" on page 33 and "The impending opportunities and challenges of Open RAN" on page 30.

As always, you will find the latest news and updates from all major players in the ICT sector. Your feedback is welcome on info@teletimesinternational.com

Enjoy Reading!

Khalid Athar Chief Editor



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stc 5G network, a pole position awarded by Formula1 stc Saudi Arabian GP

In a global sporting event hosted by the Kingdom of Saudi Arabia for the second time, Formula 1 fans are full of enthusiasm and adrenaline experiencing the Formula1 stc Saudi Arabian GP hosted by Jeddah Corniche Circuit between March 26-27.

Where technology meets the 800 horsepower F1 car and where speed meets connectivity on the Jeddah Corniche Circuit, which is dubbed



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sponsoring the world's fastest street circuit in Saudi Arabia

stc, the national digital enabler, will be proving once again its technology capacity and 5G enabling racers, engineers and fans to feel the speed, and adrenaline while the race hits a 360 KPH.

the fastest street track in the championship, stc, the national digital enabler, is proving once again its technology capacity and 5G enabling racers, engineers and fans to feel the speed, and adrenaline while the race hits a 360 KPH.

As fast as the F1 cars, stc last year succeeded to provide racers with the best performance network. This year again, stc delivers its aptitude of its high-speed connectivity to transfer racer's data in real time, harness advanced technologies in communications inside the racetrack and cover the circuit with a high-speed network enabling, the Haas-Ferrari, McLaren-Mercedes, Mercedes-AMG and the remaining teams to compete for their pole position and communicate with their engineers easily and safely, as modern Formula 1 cars are loaded with up



to 200 sensors that can measure more than a thousand data channels at any time during the race. This equates to a total of 2GB of data transferred from one car during one lap during the race, resulting in over 3TB being collected during the entire race.

The data transferred between racers and engineering teams is quite significant as it includes information about the car, information about the brakes, tires, air flow, the car's downforce, the DRS system and many more. stc through its high-speed connectivity and low latency 5G network provides its digital capabilities, enabling the participating teams to broadcast all information, ensuring the drivers' safety to plan to win the race.

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Huade unveils its latest products and solutions at MWC Barcelona

In line with Huawei's goal to support its customers thrive in a digital economy, Huawei unveiled various products and solutions at this year's MWC Barcelona. This includes the company's third-generation TDD M-MIMO products and FDD ultra-wideband multi-antenna products. Huawei also introduced its newly released IntelligentRAN architecture during the show.

Huawei also held its **Industrial Digital Transformation Summit** where the company announced new full-stack data center and intelligent campus solutions. The summit emphasized that digital transformation and environmental protection are key topics in the future. Huawei provides innovative Information and Communications Technology (ICT) and a full portfolio of products to help global customers build robust ICT infrastructure and enable industrial digital transformation. In fact, over the last few decades, Huawei has been focusing on reducing energy consumption and carbon emission through continuous product and solution innovation.

Separately, during the 5G: Connecting Virtual and Reality session, Huawei Carrier BG's Chief Marketing Officer Philip Song delivered the keynote speech: "5G+XR: Bringing Imagination into Reality". Song shared insights into the XR industry and revealed the industry's "new Moore's Law". He also called on carriers and industry partners to take actions to



seize the opportunities presented by 5G+XR.

Meanwhile, Huawei and China Telecom jointly released their Cloud Network Core Capability Innovations and have committed to continue improving the network security, cloud and cloud-network synergy, and service innovation through strategic collaboration.

Innovation for 5Gigaverse

At MWC, Huawei unveiled its latest wireless products and solutions — third-generation TDD M-MIMO products and FDD ultra-wideband multi-antenna products. Huawei also introduced its newly released IntelligentRAN architecture at the press conference.

Gan Bin, Vice President and Chief Marketing Officer of Huawei Wireless Solution, gave a keynote speech titled "Innovation for 5Gigaverse Society" during the press conference. He said "5G's large-bandwidth and multi-antenna technologies have brought tangible benefits. But we do not stop here; instead, we move ahead and continue to innovate in these two areas. Our thirdgeneration Massive MIMO and FDD ultra-wideband multi-antenna portfolios further improve network performance and energy efficiency. They greatly boost operators' confidence in building high-quality and green 5G networks."

The third-generation TDD Massive MIMO series includes the third-generation MetaAAU and BladeAAU series. The third-generation Massive MIMO doubles antenna elements of its previous generation from 192 to 384, making it the only one in the industry to have done so.



FDD ultra-wideband multi-antenna products include: the industry's lightest true wideband 4T4R RRU, which supports simplified deployment of 700-900 MHz and 1.8-2.6/1.4 GHz multi-band networks and dynamic power sharing across all modes, improving user experience by 30% and reducing power consumption by 30%; and the industry's first high-power ultra-wideband 8T8R, which uses the combination of 1.8 GHz and 2.1 GHz to provide equivalent coverage to the sub-1 GHz band, benefiting both 4G and 5G networks by increasing their capacity by 1.6 and 3 times, respectively. With the industry's only 8T8R native, green antenna of the Hertz platform, the energy consumption is further reduced by 15%. For scenarios requiring large capacity, Huawei provides the industry's only commercial FDD Massive MIMO, which increases 4G network capacity by 3 times compared with 4T networks and 5G network capacity by 5 times.

Another highlight of the release is Huawei's IntelligentRAN. According to Gan Bin, this architecture brings intelligence to almost all aspects of a wireless network from experience, green, service to O&M. It leverages the Mobile Intelligent Engine (MIE) to enable network autonomy through data, model, and decision collaboration between site layer and network layer. Key benefits of the IntelligentRAN architecture include:

- Smart Experience: Enable optimal experience based on heterogeneous network by introducing 3 key technologies: L3 intelligent grid, L2 scheduling dictionary, and L1 channel graph, which can improve user experience by more than 50% on multi-band and multi-site networks.

- Smart Green: Maximize energy efficiency with continuous experience by introducing Mobile Intelligent Engine – NRT (Non-Real-Time) and RT (Real-Time), which will optimize the energy saving strategy in terms of multi-dimensional parameters to ensure maximal effect across networks.

-Smart Service: Achieve accurate provisioning and reliable SLA with Mobile Intelligent Engine, which will adjust network parameters based on SLA-network in real time and provide reliable SLA assurance without affecting the experience of other services. - Smart O&M: Implement zero-fault and zero-downtime networks that support intelligent fault identification, diagnosis, prediction and prevention.

As Gan Bin said: "Huawei's IntelligentRAN implements zerowait, zero-trouble, zero-touch networks. It enables autonomous networks featuring smart service, optimization, green and simplified O&M. Furthermore, it facilitates operators to explore new space and business forms of 5G."

'Light up the Future'

At MWC Barcelona 2022, Huawei met with global operators, industry partners, and thought leaders for discussions on topics including 5G business success, green technology, IT growth, and the company's GUIDE business blueprint.

Huawei's Rotating Chairman Guo Ping spoke on the company's plan to continue its globalization strategy and increase its investment into foundational technologies. Through this investment, Huawei hopes to reshape the fundamental theories,



architecture, and software that underpin its industry, increase its mid-to long-term competitiveness, and ensure the longer-term sustainability of the ICT industry.

Looking to the industry's development, Huawei's recent GUIDE business blueprint provides support to digital network providers, as it lays out the five key capabilities operators will need to develop to achieve business success in the coming decades. These include expanding services, innovating efficiently, leveraging resources, competing on value, and contributing to society.

To support operators while also enabling enterprises to thrive in a digital economy, Huawei has unveiled a variety of solutions at MWC 2022 including:

- Launching gigabit fiber-to-the room (FTTR) solutions that aim to build an all-optical base for smart homes and digital enterprises, enabling gigabit Wi-Fi 6 coverage in each room and creating a brand-new digital life experience.
- Steven Zhao, Vice President of Huawei Data Communication Product Line, noted that the rapid development of digitalization poses new requirements on IP networks. To meet these new requirements, the company's vision for IPv6 Enhanced is intended to further unleash the value of connectivity in terms of deterministic quality, programmability, intelligent O&M, and more, playing an important role in the digitalization of numerous industries.
- Unveiling its latest wireless products and solutions, including third-generation TDD M-MIMO products and FDD ultra-

wideband multi-antenna products. Huawei also introduced its newly released IntelligentRAN architecture. Gan Bin, Vice President and Chief Marketing Officer of Huawei Wireless Solution, noted: "5G's large-bandwidth and multi-antenna technologies have brought tangible benefits. But we do not stop here; instead, we move ahead and continue to innovate."

 Huawei's OneStorage strategy and new data infrastructure offerings to global carriers. Huawei IT Product Line President, Peter Zhou, noted, "Huawei strengthens its OneStorage strategy to enable storage resource pooling, intelligent management, and interconnection with multiple clouds." The company has already been named a Leader in Gartner Magic Quadrant for primary storage for six consecutive years.

Meanwhile at MWC 2022, Huawei Mobile Services (HMS) showcased a range of innovative tools, capabilities, and experiences through HMS Core, HMS Apps, and Five HMS basic service engines, as well as the latest hardware innovations. Huawei is displaying its full capabilities at the HMS Ecosystem Exhibition Area, including HMS for PC powering the Smart Office experience, Huawei Ads, HMS Core Kits, Petal Search, Petal Maps, and more.

At the Huawei Spring 2022 Smart Office Launch, Huawei Consumer Business Group announced the launch of seven new products, including its latest flagship laptop, its first all-in-one PC, a new 2-in-1 laptop, its first E-Ink tablet, a new HarmonyOS tablet, the company's first-ever printer, and a new portable speaker. These releases were part of a larger plan Huawei announced to create smart offices and fresh experiences for global consumers.

GUIDE to a better digital economy

At the Huawei Day o Forum held the day before Mobile World Congress 2022, Ryan Ding, Huawei's Executive Director and President of the Carrier Business Group, said that operators can work on connection density, computing diversity, and carbon reduction intensity, and called on operators to join Huawei in its GUIDE business blueprint to create a better digital economy together.

The global digital economy is developing rapidly, and over 50% of global GDP will be digitalized in 2022. Many countries and regions, like China, South Korea, and the EU, have already announced huge investment plans for the digital economy. As ICT infrastructure providers, operators will play an increasingly important role in leading the development of the future digital economy.

During his keynote, Ding explained that the vitality of digital economy can be evaluated by three factors: connection density, computing diversity, and carbon reduction intensity, and that these factors give operators the levers they need to shape the future of the digital economy. By increasing connection density, operators can grow their 5G user base and expand their business scope. By diversifying their computing resources, operators can create synergies between connectivity and IT to boost enterprise digitalization for new growth. In carbon reduction, new green ICT solutions, as those Huawei provides, will increase network capacity and cut the energy consumption per bit for greener development.



5G has come a long way

Commercial 5G deployment started two years ago, and since then, the numbers of 5G networks, users, and devices have grown rapidly. By the end of 2021, more than 200 operators have deployed commercial 5G networks, servicing more than 700 million 5G users. There are currently over 1,200 commercial 5G devices in use. This growing user base is bringing commercial returns to operators while driving continuous network rollouts.

During the event, Ding shared 5G success stories from various operators and showed how new 5G applications like AR, VR, and new video are offering users new experiences. Flexible 5G pricing models are also benefiting both users and operators and driving rapid growth in the 5G user base.

Connectivity + IT for new growth

According to Ding, as more industries are going digital, IT infrastructure will need to be rebuilt to drive more efficient operations. By creating synergies between IT and CT, cloud and edge, and cloud and networks, Huawei hopes to help operators go digital and intelligent and achieve new revenue growth. In Asia Pacific, for example, Huawei's OneStorage solution has helped one operator cut TCO by 30%.

Green ICT: More Bits, Less Watts

Green ICT is key to sustainable growth in the digital economy. The



Peng Song, President Carrier Marketing & Solution Sales -Huawei

ICT industry is providing new technologies to help other industries reduce their carbon footprints. In fact, these savings are predicted to amount to ten times larger than the ICT industry's own footprint. At the forum, Ding also shared Huawei's green strategy: More Bits, Less Watts. With its full range of green solutions, including green sites, green networks, and green operations, Huawei aims to help operators increase network capacity and cut the energy consumption per bit. Huawei also proposed the Network Carbon Intensity index to quantify the carbon emissions of the ICT industry and help operators make their green strategy a reality.

At the end of his speech, Ding proposed Huawei's GUIDE business blueprint, which aims to help operators develop the five key capabilities required for business success: expanding services, innovating efficiently, leveraging resources, competing on value, and contributing to society.

Huawei's President of Carrier Marketing & Solution Sales, Peng Song, discussed this path for network evolution in his keynote speech and called on operators to collaborate more with industry partners along with the GUIDE business blueprint, saying, "We should more actively embrace the digital world. GUIDE is now. Let's act now to draw a business blueprint with partners in more industries to lead future development, as once the train of digitalization starts to roll forward, nothing can stop it."

Separately at the Huawei Day o Forum, Huawei released a series of new IT products and solutions as part of a new "intelligent IT



ICT Infrastructure Managing Board - Huawei

foundation" for operators. David Wang, Executive Director of the Board and Chairman of the ICT Infrastructure Managing Board at Huawei, explained that this reliable and efficient IT foundation will help operators go intelligent, increase revenue, reduce costs, boost efficiency, and ultimately achieve new growth.

Breaking down misconceptions to accelerate green development, Huawei Carrier's Chief Marketing Officer Dr. Philip Song noted, "Green development is a buzzword. Just like from Newton's classical mechanics to Einstein's theory of relativity, its development is going to be marked by a spiraling path between misconceptions and truths. We need to move past these five misconceptions as soon as possible to accelerate the green development of the ICT industry."

Commitment to invest into foundational technologies

At MWC, Huawei showcased a series of new technologies and solutions from across all of its business units to ensure success through digital transformation. The company came together with industry partners to share knowledge, experiences, and best practices to continuously create value for telecom carriers and to help enterprises accelerate their digital transformation.

During the weeklong event, Huawei met with organizations from the Middle East and abroad to discuss topics including 5G business success, green technology, and connectivity + IT, with a focus on creating business and social value to light up a bright future of the digital economy. Huawei has estimated that over 50 percent of global GDP will be digitalized in 2022 as the global digital economy develops rapidly.

Rotating Chairman Guo Ping committed to continue Huawei's globalization strategy and increase its investment into foundational technologies to reshape the technological paradigm. Through this investment, Huawei hopes to reshape the fundamental theories, architecture, and software that underpin its industry, increase its mid-to long-term competitiveness, and ensure the longer-term sustainability of the ICT industry.

Meanwhile, Huawei placed a particular emphasis on sustainability at MWC, illustrating how a new generation of green ICT solutions and strategies will support its carrier and enterprise customers. The company showcased how it can support carriers to optimize energy by building energy-efficient sites, networks, and operations, helping them to reduce their carbon footprint while lowering energy expenses to meet their cost reduction goals achieving "More Bits, Less Watts".

The company also won several awards at MWC. Huawei 5Green Solutions were recognized twice at the MWC22 Barcelona, winning the GTI 'Innovative Breakthrough in Mobile Technology Award' and 'Outstanding Award', a testament to Huawei's substantial contributions to technological innovation and sustainable development in its efforts to promote customer benefits. Moreover, world leading operators Telkomsel, TPG, joint with Huawei won the GTI Awards '2022 Market Development' Award for their outstanding contributions to the 2.3 GHz industry. The company was also named a Leader in Gartner Magic Quadrant for primary storage for six consecutive years.

IntelligentRAN wireless architecture

Huawei unveiled IntelligentRAN, its new wireless network architecture, at the Pre-MWC Briefing and Product and Solution Launch event. This architecture is designed to help carriers build autonomous networks using service operation intelligence, experience optimization, and simplified O&M.

Huawei's Vice President and Chief Marketing Officer of Wireless Solutions Gan Bin spoke at the launch, explaining how key technologies were incorporated into the architecture to support ADN over wireless networks: "Intelligence improves wireless networks greatly by supporting correlative data analysis and prediction to make decisions more adaptive. This is where IntelligentRAN comes in. It will enable networks to realize zero service waiting, consistent experience, zero network faults, and optimal experience and energy efficiency. Using Mobile Intelligent Engine (MIE), it will better coordinate data, models, and decisions between base stations and networks, paving the way to wireless intelligence."

5G has caused a huge increase in the number of personal, industry, and home applications available in the wireless market. As these services increase, network performance requirements



Using Mobile Intelligent Engine (MIE), it will better coordinate data, models, and decisions between base stations and networks, paving the way to wireless intelligence."

are similarly diversifying in terms of coverage, capacity, and latency. Interference between cells, a long-standing problem in mobile networks, is also hindering operators' attempts to provide consistent experience. And of course, as traffic increases, so will energy consumption. To cope with these challenges, operators are increasingly relying on intelligent wireless networks to quickly roll out services while using the best frequency band combination to ensure optimal experiences. They now look to user-centric networks for resource configuration and simplified O&M to operate with optimal experience and energy efficiency.

Huawei's new IntelligentRAN allows intelligent air interfaces to use

key technologies such as smart grids, scheduling dictionaries, and channel graphs. With these tools, they can intelligently configure air interface resources and achieve optimal user experience and capacity. Service prediction with IntelligentRAN also guides nonreal-time spectrum and channel selection on the network side and real-time symbol scheduling and transmit power configuration on the base station side. This significantly reduces energy consumption across the entire network.

In addition, IntelligentRAN enables intelligent SLA site planning, where parameters are dynamically configured, and models can be adjusted flexibly in response to service changes.

e& reports consolidated net profit of AED 9.3b for FY2021, a 3.2 % increase year on year

Financial Highlights for FY 2021

	FY21	FY20	% change
Net Profit	AED 9.3bn	AED 9.0bn	3.2%
EBITDA	AED 26.7bn	AED 26.4bn	1.0%
Revenue	AED 53.3bn	AED 51.7bn	3.2%
Earnings per Share	AED 1.07	AED 1.04	3.2%
Aggregate Group subscribers	159m	154m	3.0%

Operational Highlights and Key Developments 2021.

Increased foreign ownership limit in share capital from 20% to 49%.

Increased ownership stake in Maroc Telecom Group from 48.4% to 53.0%.

e& was recognised by Brand Finance as the world's strongest telecom brand, the first in the Middle East and Africa (MEA) region to achieve this recognition.

ESG rating was upgraded from BBB to A by MSCI Global Index, reflecting continued efforts in sustainability.

Credit ratings by agencies S&P Global and Moody's affirmed the Group's high credit rating at AA-/Aa₃ with a stable outlook.

Successfully completed a bonds issuance worth one billion Euros to refinance the maturing Euro bond tranche.

Overview

Consolidated revenues for e& increased by 3.2% to AED 53.3 billion, while Consolidated Net Profit rose to AED 9.3 billion, also representing a 3.2% increase year on year. Consolidated EBITDA amounted to AED 26.7 billion, representing a year-on-year increase of 1.0% and resulting in EBITDA margin of 50%.

During 2021, the Etisalat UAE subscriber base reached 12.7 million subscribers, while aggregated subscriber base reached 159 million, representing a year over year increase of 3.0%.

Board propose a dividend of AED 0.4 per share for H2 2021, representing a total dividend for FY2021 of AED 0.8 per share.

Across e& footprint, the company has shown strong financial performance compared with the prior year, despite persistent challenges in the markets in which we operate, including the measures introduced and overall recovery rates for the Covid-19 pandemic. The UAE ranks as number 1 on the Bloomberg Covid-19 Resilience Ranking. e& delivered strong financial performance across its major metrics, driven by international operations as well as steady improvements in domestic operations.

Strategy and new corporate identity

As part of its strategy, e& will enhance customers experiences across all segments by ideating, designing, and delivering a range of innovative and breakthrough technologies, driven by its track record of success. This strategy is aimed at accelerating growth through the creation of a resilient business model that is built on key pillars representing the group's main business sectors.

Telecom will maintain the previous branding identity while upholding the Group's rich telecoms heritage, bolstering our strong telecoms network and maximising value for its customer segments, in the UAE and internationally.

Ramping up the digital services for

individual customers in order to elevate their digital-first lifestyle, e& life will bring next-generation technologies through smart connectivity platforms in entertainment, retail, mobility services and financial technology.

In order to enable the digital transformation of governments, large-scale enterprises and corporates, e& enterprise focuses on maximising value through its end-to-end solutions in cybersecurity, cloud, Internet of Things (IoT) and Artificial Intelligence (AI), as well as deploying mega projects.

e& capital will allow the Group to focus our efforts on driving new mergers and acquisitions while maximising shareholder value and strengthening global presence.

Outlook

With organizations and individuals fundamentally changing the way they conduct business; e& is determined to stay agile and fit for the future. Our work is essential in bridging the gap between the telecom industry and what our customers need in the digital space. Looking ahead to 2022, e& remains well-positioned to continually create innovative propositions so that our customers, businesses and communities feel cared for.

Commenting on the results, Chairman of e&, Jassem Mohamed Bu Ataba Alzaabi, said: "It is my great pleasure to present the financial results for the year 2021. e& celebrated multiple milestones, witnessed historical achievements, and saw strong financial performance, all of which I believe are setting us up for an even brighter digital future. The digital revolution spurred by the pandemic does not show signs of slowing down. In fact, telecom operators were faced with two choices: stay still and offer the same services or innovate to ensure business continuity and more importantly, achieve growth. We will continue to rise to the challenge and innovate at every opportunity presented to us because we firmly believe that we can make a difference in the lives of millions in a time of

Sheikh Mansour Bin Zayed Al Nahyan announces the launch of e& as a new brand identity for Etisalat Group

Sheikh Mansour Bin Zayed Al Nahyan, Deputy Prime Minister of the United Arab Emirates and Minister of Presidential Affairs, launched e&, marking the transformation ambitions of Etisalat Group into a global technology and investment conglomerate.

Commenting on the launch, Sheikh Mansour emphasised the importance of capitalising on opportunities that the fast-evolving business landscape continues to present in the age of technological disruption. He commended the efforts of e& in devising a more progressive business model that sustains its hypserscaling ambitions, promotes new ventures and partnerships, and maximises value across its operations.

Sheikh Mansour said, "The transformation of e& from a telecom company founded more than four decades ago in the UAE into a global influence in digitalisation highlights its role in upholding the UAE's sustainable economic development and diversification plans. We commend e& for being the national champion that steers its global digitalisation leadership through pioneering advanced technologies, advancing ICT infrastructures, and fuelling geographic expansions while unlocking value."

The launch of the new brand identity for Etisalat Group was attended by His Excellency Mohammad bin Abdullah Al Gergawi, Minister of Cabinet Affairs, Mohamed Bin Hadi Al Hussaini, Minister of State for Financial Affairs and Jassem Mohamed Bu Ataba Alzaabi, Chairman of e&.

The ambitious strategy

As part of its strategy, e& will enhance customers experiences across all segments by ideating, designing, and delivering a range of innovative and breakthrough technologies, driven by its track record of success. This strategy is aimed at accelerating growth through the creation



Mohamed Bin Hadi Al Hussaini Minister of State for Financial Affairs



Sheikh Mansour Bin Zayed Al Nahyan Deputy PM of the United Arab Emirates



Mohammad bin Abdullah Al Gergawi Minister of Cabinet Affairs

of a resilient business model that is representing the Group's main business pillars.

Telecom will retain the previous branding identity while upholding the Group's rich telecoms heritage, bolstering the Group's strong telecoms infrastructure and maximising value for its customer segments, in the UAE and internationally. In addition, it will expand into new geographic markets while continuing to drive operational performance in the 16 markets where it operates.



Jassem Mohamed Bu Ataba Alzaabi Chairman - e&

e& life is focused on enhancing customer delight by becoming an integral part of the lives of its customers. The business pillar has already made robust plans to deliver next-generation technologies and digital experiences that will bring the world to the customers' fingertips through smart connectivity platforms in entertainment, retail and financial services.

e& enterprise will be the driving force behind the digital transformation of governments, corporates and enterprises. Through its breakthrough technology

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solutions in cybersecurity, cloud, Internet of Things (IoT) and Artificial Intelligence (AI), as well as deploying mega projects, e& enterprise will create real business value as it continues to leverage on its expertise as a digital managed company having the strength and reach of a global trusted partner.

Maximising shareholder value while strengthening global presence is key to the e& strategy to empower societies. e& capital will act as a pillar for growth for the Group as it drives new acquisitions and mergers in line with its vision for investing in ideas that make the future.

The evolution e& comes at the heels of the Group's strong financial performance as well as several milestones that contributed to the transformation. More recently, e& ranked first in the Forbes MENA Top 10 most valuable listed companies in the UAE. The Group was also named the strongest telecoms brand in the world. Accumulating success year on year has taken place in light of the considerable investments the Group has made in maintaining its 5G network prowess, investing in breakthrough technologies, aggressive market penetrations, deploying megaprojects, driving smarter connectivity, and pursuing strong partnerships.

A new era built on solid foundations

Jassem Mohamed Bu Ataba Alzaabi, Chairman of e&, said, "This is a milestone in the history of the Group, and a new era where we reaffirm our commitment to deliver outstanding customer experiences and maximise value for our shareholders.

Contd. from page 18

accelerated digitalisation, and we are ready to meet the demands of the future with confidence, resilience, and agility.

"I would like to extend our gratitude to the UAE leadership for inspiring us through their vision as we continue to go from strength to strength. It is an honour to be empowered as an organisation to amplify our growth prospects, charter our course into a more holistic digital transformation, develop new ICT capabilities, and build a new reality for all of us through next-generation digital connectivity and cutting-edge technologies." To ensure that the next chapter of our journey is a success, we made the decision to realign our business model so that we can stay agile and fit for the future.

"This successful journey has been made possible through the continuous support of the UAE leadership as we become key enablers in the digital transformation taking place globally across all industries," he continued.

He added, "Our evolution is built on the solid foundations of several historical achievements, multiple milestones and robust financial performance, highlighting our global technological leadership and our confidence in leading change for growth. During this time, we have also worked tirelessly to ensure that our solutions positively impact people's lives at every touchpoint. We are now ready to be the future-focussed nexus that will drive more positive change for our customers and shareholders through our robust expertise."

Transformation driven by thought leadership

e& has already demonstrated its robust industry leadership when it comes to digital transformation when it announced the establishment of its consumer digital and enterprise digital business units, in addition to attracting partners from around the world to contribute to the digitalisation growth journey.

Commenting on the launch of the new brand and its transformation strategy, Hatem Dowidar, Group CEO of e& said, "The evolution as e& embodies our

Hatem Dowidar, Chief Executive Officer of e&, added: "This has been an exceptional year during which we have witnessed robust financial performance and business growth across our operations. I am particularly proud of our performance set against the backdrop of another challenging year as we continued to navigate through the effects of the Covid-19 pandemic. Our domestic and international operations delivered a strong performance over the course of the year as a result of our continuous focus on maintaining growth."

"It was a great honour for us to be recognised as the world's strongest telecom brand and the most valuable telecom brand commitment to double down on enhancing the quality of our solutions while surpassing customer expectations and maximising value creation for our shareholders. Our robust transformation plans will focus on running our business operations more efficiently, diversifying our revenue streams as well as helping our enterprise customers achieve their digital transformation goals adeptly.

"We will continue to identify new growth opportunities, take full advantage of strong partnerships and maintain our edge as the global technology investment conglomerate that makes a difference in people's lives," Dowidar continued.

Hatem Dowidar further said, "The digitalisation acceleration during the pandemic offered a new realm of opportunities for us to serve our customers better as they seek more seamless and enhanced digital experiences. Our strong business continuity principles and adept crisis management, combined with our growth mindset, have dramatically impacted our business growth across our operations. We seized the moment to become future makers who are confident to lead a transformation of such grand scale, whether it is being master innovators or enablers of digitalisation in markets where we operate.

"We are keen to contribute to a knowledgebased economy that will digitally empower societies as we move forward with our mission to pioneer next-generation technologies, build breakthrough partnerships and create a new world powered by all of us," he concluded.

portfolio in MEA, which is a testament to the success of our strategic initiatives, the building of one of the world's fastest networks and, of course, our employees' relentless dedication. I would like to extend my gratitude to the entire e& family, who continue to make us proud at every step of the way," he concluded.

"Thanks to our customers and shareholders for their continued support of our business and vision as we move forward with our mission to pioneer broad-spectrum technologies, build breakthrough partnerships and uncover opportunities that will empower the future," he added. Dowidar concluded.



Huawei and du sign MoU on MEC Innovation

At MWC22 Barcelona, Huawei and du signed a MoU for joint innovation on multi-access edge computing (MEC). The two parties will research, verify, and replicate MEC-oriented applications in the Middle East, helping du provide more diversified communications services. They hope to join forces to accelerate the digital transformation in the Middle East, and set a benchmark for the development of global digital economy.

Saleem AlBlooshi (Chief Technology Officer of du) and Richard Liu (President of Huawei Cloud Core Network Product Line) attending the signing ceremony.

5G is the cornerstone of global digital transformation, and MEC is a fundamental technology in 5G and essential for unlocking new business value. With MEC, ubiquitous connections and high computing capabilities can be delivered to individuals for their diverse services, such as VR, AR, and multimedia; and low latency and high security can be provided to enterprises by restricting data to within enterprise campuses. The sustainable development of both B2B and B2C services requires the scaleup of MEC.

As one of the fastest growing operators in the UAE, du excels in both 5G coverage and network rate, and holds a big share in the Middle East market. Over the years, du and Huawei have continuously explored and innovated in the MEC field and achieved multiple practices. For example, in February 2021, du, Huawei, and local partners leveraged 5G MEC to live broadcast the matches of the UAE's President's Cycling Cup, delivering a VR-based immerse experience to audience.

du and Huawei both believe that their collaboration will definitely bring shared success. Saleem AlBlooshi said, "Mobilizing our joint forces together with Huawei is a big step for the mobile industry. Our ambitious framework sets to deliver high-quality certifications to empower business ventures not only in tech but across industries which further grounds du as a leading intelligent service and product provider."

Richard Liu said, Huawei has conducted extensive research in MEC and has deployed MEC-related 5G applications in various industries. With this as a solid basis, Huawei will help du unlock more MEC applications, providing diversified high-quality XR and multimedia services for individual consumers, and connection and computing capabilities to enterprise customers for their differentiated requirements."

Digital transformation is in full swing. MEC, as one of the key enablers for 5G networks, will gradually penetrate into various industries, becoming an integral part of these industries and accelerating their digital transformation. Huawei will work with more industry partners to advance MEC innovation and deployment. We are committed to helping operators achieve cloud-edge synergy and accelerate customers' digital progress.

stc's participation in MWC 2022, Barcelona

"The development and growth of the telecommunication sector enhances the Kingdom's international leadership within this vital sector" CITC Governor



The Governor of the Communications and Information Technology Commission, Kingdom of Saudi Arabia, Dr. Mohammed Bin Saud Al-Tamimi, affirmed that the telecommunication sector in KSA is witnessing great stages of development and growth across various sectors with unlimited support from the government, as the sector has been receiving attention by H.R.H Crown Prince Mohammed bin Salman Al Saud. During his visit, Dr. Altamimi praised stc Group's pavilion participating at the Mobile World Congress in Barcelona, for the efforts made by the group in provisioning the ICT sector, as well as the recent initiatives announced by stc of establishing a major digital center for the Middle East and North Africa, which enhances the Kingdom's leadership in the ICT sector.

Dr. Altamimi was briefed on the services provided by stc at the international exhibition. He also met with a number of the group's board of directors and senior executives, among the Saudi delegates participating at this significant telecommunication and digital venue.

stc Group kicked off its participation at the pavilion at MWC22 in Barcelona, in the presence of the Group CEO, Eng. Olayan bin Mohammed Al-Wetaid, while showcasing its investments in strengthening the 5G network to develop the level of experience for individuals and the business sector. stc constantly raises its efficiency and improves the quality of life, as well as develops technologies, most notably cooperation with Robots, connecting ports to the 5G network, applying virtual stadiums, in addition to its efforts in sustainability and stc TV, and finally through signing many agreements with major international companies, majorly Huawei, Nokia, Ericsson and Intel.



Joint strategic cooperation enhancing sustainability's regional agenda

stc Group, e& formerly known as Etisalat Group, Zain Group, Batelco, du, and Omantel signed an MoU at the Mobile World Congress 2022, aiming to accelerate and tighten cooperation to preserve and protect the environment and enhance climate change challenges as well as reduce the carbon footprint through operations. This memorandum comes within the cooperation of major telecom operators in the Gulf Cooperation Council Countries to improve the ICT industry and activate their roles in facing environmental challenges, focusing on climate change and advancing the regional sustainability agenda.

The MoU aims to accelerate cooperation on climate change and highlight the importance of collaboration to preserve and protect the environment as well as to maintain a sustainable economy. The actions involved include a better understanding of the carbon footprint across operations. The memorandum also seeks to strengthen work across strategic partners and policy makers around necessary measures that contribute to avoiding the climate crisis and achieving sustainable growth.

"This memorandum is an extension of KSA's vision in strengthening

partnership between all sectors to preserve and sustain the economic, social and environmental resources achieved by the Gulf Countries for future generations," said Abdullah Abdulrahman Alkanhl, Chief Corporate Affairs Officer.

"As a leading national company, stc has sensed this importance for a long time, and launched programs for sustainability and preservation of the environment. One of the most important results of which was a decrease in paper consumption to 50%, and a reduction in water use by 40%. Today we will work according to this memorandum to transfer these experiences to our partners in the sector from the companies of the Gulf Cooperation Council countries", added Alkanhl.

Salem Al-Mannai, Vice President of Technology Infrastructure and in charge of the climate change file at e&, said: "Through this memorandum, the group seeks to strengthen its partnerships to confront climate change and make all possible efforts to motivate other sectors to join these endeavors aimed at accelerating the achievement of carbon neutrality in the possible time frame in addition to our commitment to the GSMA initiative; to move the entire mobile industry to carbon neutral by 2050."

"The group also seeks, through this memorandum, to exchange experiences and best practices with regional counterparts regarding the pioneering role of the technology sector, which would become a major enabler to limit climate change", Al-Mannai added.

"Jennifer Suleiman, Zain Group Chief Sustainability Officer, said: "Climate change and reducing our carbon footprint are material to Zain's strategic objectives across our markets. This collaboration between like-minded operators is a transformative step towards advancing sustainability across the GCC and is in line with our sustainability ambition of providing meaningful connectivity leading to systemic change."

Commenting on this cooperation, Shaikh Bader bin Rashid Al Khalifa, General Manager Corporate Communications and Sustainability at Batelco, said: "Batelco attaches great importance





to environmental sustainability and reducing the carbon footprint. We have started implementing initiatives in line with the company's aims of becoming an environmentally friendly entity and achieve our corporate sustainability goals. Batelco's most notable accomplishment is the launch of Batelco Solar Park, which contributes to the production of clean and renewable energy to support with running the company's operations. We are eager to continue with our environmental initiatives to help create a more sustainable future."

Saleem AlBlooshi, Chief Technology Officer, du said: "We, at du, recognize the crucial role played by ICT in strengthening the digital economy and ensuring long-term sustainable growth in the GCC region. We have put in place sustainability objectives that aim to guide us towards achieving our vision in alignment with the region's leadership vision. As forerunners in digital innovation along with our strategic partners, we are committed to work towards a truly sustainable future with and for our stakeholders."

Eng. Said Al Ajmi, Vice President Operations, of Omantel, said: "At Omantel, we have great concern towards sustainability, and our focus includes three main pillars: the economic pillar, the social pillar, in addition to the environmental pillar. We are proud to be one of the first telecommunication companies in the region to issue a sustainability report covering performance in all these aspects, as we issued our first report in 2012, in addition, we launched several initiatives aimed at reducing our impact on the environment by building on the digital transformation and automation and benefiting from it, in developing and transforming our procedures and processes."

"We are pleased to sign this agreement with stc and the other Gulf telecom companies to exchange knowledge and experiences, emphasizing our quest to preserve the environment and play the expected role in combating climate change and reducing the carbon footprint of our operations", Al Ajmi concluded.

Excellence GTI Award and innovative technology partnerships

stc Group earned the Excellence Award organized by the Global TD-LTE Initiative (GTI), for its contribution to the innovative

"Smart IoT Ecosystem". The award was announced during the "GTI Online Summit 2022" that was held as part of the Mobile World Congress (MWC22) event in Barcelona. stc was presented and honored through this award for its dedication towards its significant contribution to providing innovative mobile services, applications, and solutions enabled by 4G, 5G and Enterprise Network Solutions technologies for consumers and verticals.

Furthermore, stc signed a number of partnerships with the world's leaders of the communications, networks and information technology industries, during its participation in MWC Barcelona. The partnerships with Ericsson, Nokia, Huawei, Intel, Cisco and Microsoft, were the most prominent, in addition to other companies, in a step to expand and develop 5G networks, cloud services, edge computing, and accelerate the open digital infrastructure, as well as to establish a "Disaster Recovery Data Center", that aims at enhancing the customer experience and enabling the Kingdom's digital transformation.

stc's agreements with Ericsson focused on researching the capabilities of 5G network technologies, enhancing network performance and supporting its deployment in the Kingdom, which will provide stc subscribers' with higher data speeds, as well as enabling a range of new applications with low response time, and transforming the current structure into an open digital structure to support Innovative services for the fifth-generation network and the Internet of Things.

As stc always seeks to develop and innovate digital systems, the group signed a memorandum of understanding with Microsoft Arabia to cooperate in the areas of digital systems development strategies. The collaboration includes developing a digital platform (MEC) that provides 5G services based on cloud communications - and developing new applications and business models. The memorandum aimed at supporting the fifthgeneration services for stc customers, using artificial intelligence (AI) technologies and the huge database which will pave the way for improving the customer experience and enhancing the quality of many instant services.

stc is constantly and rapidly expanding the use of cloud technology to maintain its competitive edge, innovation and transform interactions with digital services. Accordingly, the group signed a five-year collaboration with Cisco to create



a unified software-centric cloud services package to ensure enhanced hardware infrastructure, automation, virtual simulation services, and coordination tools.

Moreover, stc signed an agreement with Nokia, which included four areas, characterized by the digitization's development, future of work, climate, and society. The agreement was made to raise the quality of the commercial deployment of 1 terabyte channel, which will allow stc Group, through Nokia's PSI-M technology, to continue expanding the range of network capacity as well as support new services related to high bandwidth. The agreement also aimed at reducing carbon emissions through the application of best sustainability practices.

stc explored the world's experiences on providing better broadband services to a larger number of beneficiaries and at a faster speed, as well as the group showcased its capabilities at levels of automation, including its specialized technologies in data centers and solutions designed in the telecommunications cloud. Furthermore, stc exchanged its experiences with the world on how safety, productivity and efficiency affect the operational performance of companies and highlighted critical communication network solutions and technologies which are the basis of digital transformation.

Over the four days of MWC, stc recorded a remarkable presence among the largest telecommunications companies in the world and presented its digital infrastructure achievements, the uses of fifth generation technologies, most notably cooperation with robots, linking ports to the fifth generation network, applying virtual stadiums, financial technologies and sustainability experiences, as well as discussed technological changes, trends, drivers and the potential opportunities for societies and economies, while addressing the global challenges such as sustainability, cybersecurity and digitalization.

Brand Finance awards stc the highest value brands in the Middle East

Brand Finance awarded stc the highest value brand in the Middle East. Eng. Abdullah Abdulrahman Alkanhl, Chief Corporate Affairs Officer at stc, received the Top Brand award in the presence of Eng. Olayan Alwetaid, GCEO of stc, Mohammed Rashid Abaalkheil, Corporate Relations VP, and Meshal AlRubiaan, Corporate Communication General Manager, Corporate Relations at stc pavilion during its participation at the Mobile World Congress 2022 in Barcelona.

This certificate came after stc topping the most valuable brands in the telecommunications sector and the strongest in the Middle East for the second consecutive year, with a value of more than \$10 billion among the top brands.

The great achievement represents stc's determination to remain the most valuable brand in the Middle East since last year, as it reached \$9.2 billion during last year and soared to \$10 billion dollars this year. By emphasizing its commitment to moving forward towards enabling innovation and digital transformation and consolidating its position among the world's leading companies in the Middle East and North Africa region by expanding the provision of its services through an integrated system of services provided by the group and its subsidiaries.

stc's achievement reflects these results, confirming the success of DARE's strategy, by focusing on providing a distinguished customer experience and pioneering market growth. It was able to continue to maintain its leadership and enhance the strength of its brand in the Kingdom and the region, based on several unconventional paths to enrich the experience of its customers with digital solutions and services. stc has achieved a 32% growth in brand value since the rebranding in 2019. With witnessing an improvement in the brand's rating from AAA- to AAA and soared to advance 7 positions in the global ranking.

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عمانتل Omantel

5G will be the main enabler of Oman's Digital Transformation to support the 2040 vision

Dr. Ali Al Hashmi, General Manager Networks at Omantel speaks with Teletimes at MWC Barcelona 2022

Interview: Khalid Athar

Khalid Athar: Please tell us about your experience and your current role at Omantel.

Dr. Ali: I have more than 23 years of experience in the telecom sector. I started in '99 January as a technician, as a field guy in maintenance. Then I moved to operations and I worked in many departments in operations for wireless transmission. After that I moved from maintenance operation into project management and moved into network planning after being a project manager for quite some time.

Now, I'm mainly responsible for the network planning and some of the areas I look after include backbone fibers, the network core virtualization, the access networks - FTTH plus the wireless access including 5G and 4G among other things.

KA: Leading the planning and operations for a major telecommunications operator, what are the major challenges that you face?

DA: Oman is a very large country; it's like almost twice as big

as UK in terms of area, but the population is only 4 million. The main challenge is that people are very scattered. Furthermore, this is also a difficult geographical terrain. You have mountains, you have wadis, you have deserts, and then maybe somewhere you have two houses on top of the mountain and other houses down in the wadi. Providing telecommunication services to a variety of people or crossing of those geographic is one of the key challenges.

I think 5g came as a solution to provide broadband to those people that couldn't be reached by fiber or copper. The challenge here is on the cost. Normally whenever you're deploying any new technology, the TCO (Total Cost of Ownership) is very important, which is why you will find that telecommunication services in Oman are very expensive. This factor adds on to our challenges as we try to support the government in meeting the vision of 2040 which is specifically focused on the infrastructure and logistics and we have to rely on modern technologies like 5G to support it.

KA: How do you see the future of 5G in Oman?



DA: 5G has a promising future in Oman for the reasons above. We used to have difficulties of providing services to the scattered people. And they are living in difficult-to-reach geographical terrains like mountains. Even in scenarios where its physically possible, the cost of putting fiber in such areas is not feasible. 5G is a very real solution to our challenge.

Therefore the future of 5G is big in Oman, and 5G will be the main enabler of Oman's Digital Transformation to support the 2040 vision of the government. We are already working towards that vision collaborating with enterprises for example in logistics, we are already working with some seaports providing them various solutions and I am highlighting this because we have global examples of whenever automated systems are used in the ports, systems which reduce the need for human input such as the automation of cranes, it usually increases the performance of the seaports quite significantly. Where, traditionally, a port could be providing 3 to 4 day wait times to different ships, these times could come down to a single day with automated solutions.

KA: Have you deployed any use cases with the seaports? Which other areas are you focusing on?

DA: We have already commercialized one customer with a lot of use cases. In Oman, we have three main ports, the Sohar port, the Salalah port and the Duqm port. We already have projects in the Sohar port and we are continuing to add on projects in line with the best global standards including use cases like crane management and automation. Besides that, we are now approaching Salalah port and Duqm port. The idea is to fully automate the ports like some other countries which significantly increases the productivity and efficiency. This is the first area of focus.

Another area we are exploring is the Oil & Gas sector. As Oman and other neighboring countries are driven by this sector, we are focusing on this with some ongoing POCs with some of the oil companies.

In addition to that, we also looking at the fishery industry. We are talking to

the main players about how to support them and we started talking to the agriculture players like big farms owned by the government or invested in by the government discussing how to support them with use cases like drones which removes the need for manual inspections. We also have irrigation use cases and we started talking to one of the big farms about how to monitor the irrigation system with them. Overall, we are moving very fast and we see that 5G is really an enabler of digital transformation and hopefully we'll see more use cases to come.

KA: Would you like to shed some light on the role Huawei is playing in supporting your digital transformation and future business?

DA: We have been active on 5G with a very early start and we have been using a lot of Huawei products for a very long time now. For us, Huawei is experience management, it's something going beyond just the network – and this is important because the customer doesn't care about what you're doing behind the network. The customer is caring about his experience in using the services. So, we start expanding from monitoring the network, to monitoring the services. But then we have to go one more level, which is the customer experience of using particular apps or particular services, and how to improve the quality of those services. We ended up even creating part of this platform with Huawei.

We combine the customer experience with the network performance and customer experience is now becoming the key thing. It's a matter of you retaining the customer, even if you have very innovative technology, if the customer is not experiencing, he will leave you as he has an option. The only thing is how to maintain the customer

"Oman is a very large country. The main challenge is that people are very scattered and adding on to the challenge is the difficult geographical terrain."

not like a vendor but just like a partner. And as a partner well invested in R&D, we considering them seriously in our technology roadmap. We count on them for understanding what's coming in the future, where are things heading and where can our network best benefit. This is especially the case for 5G where we have a good collaboration.

In our partnership with Huawei, it's not like we are dealing like a vendor and client - we are working truly like partners. Huawei supports on many things, including some of the things we have been talking about at MWC Barcelona. For example, the customer and focusing on what he's looking for in the experience.

A key reference in this type of monitoring is the Customer Experience Index which accounts for many complex data points that refer to the level of experience in certain activities such as watching a video. This is where a partner like Huawei matters as they bring in digitalization and automation, using Artificial Intelligence to understand the patterns and data points which can be too difficult to manage otherwise. Through such partnerships, we are able to better understand and improve on our customer's experiences.

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stc to host Mobile 360 in Riyadh

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stc Group has signed an agreement with GSMA Group to host the first ever Mobile 360 series in Riyadh, during stc's participation at the MWC, Barcelona 2022. The agreement was signed by Eng. Olayan Alwetaid, stc Group CEO and Mats Granryd, Director General of GSMA.

GSMA Mobile 360 series discusses the most important telecom industry issues and challenges facing the sector to enhance regional participation and discuss the impact of mobile technology globally. "We are pleased to sign this agreement with GSMA, a global leader in the ICT industry. Mobile 360 addresses the most pressing issues and challenges facing the world as we become truly digital", said Eng. Olayan Alwetaid, stc Group CEO.

"Bringing these international experts to Riyadh enables Saudi to further contribute to this conversation as the Kingdom's transformation provides firsthand deep experience of what rapid digital investment and development can achieve. Such a vibrant platform will reflect both the KSA's vision 2030, and stc's strategy while pushing towards a fully digital future which we are delivering at scale and at pace.", added Alwetaid.

More than 70% of major mobile network operators and developers of technical infrastructure services are expected to be participating at the Mobile 360 conference.

stc and Huawei launch 1st FTTR commercial service

stc and Huawei launched their 1st initiative, FTTR commercial service out of China the Leading global market, during MWC 2022. stc and Huawei have identified massive potential market which is aligned with the Kingdom's sustainable development goals, and Riyadh No1 global speed ranking initiative. Both parties have strategically agreed to accelerate FTTR products in KSA to deliver un-matched Giga experience.

FTTR Massive deployment project scope revolves around, solving through the FTTR, the Wi-Fi coverage problem, and provide customers with stable full-speed bandwidth experience. stc and Huawei jointly work to accelerate and enable FTTR application in multiple scenarios. For example, but not limited to, houses, big apartments and "small to medium business" scenarios. Furthermore, as FTTR installation requires fiber cables laying in the facility, Huawei will enable 8 teams from stc's Installation team to perform quality installations. Moreover, the FTTR solution will bring huge opportunities for stc, as the FTTR potential targets and market space development are stc's responsibilities and Huawei team will provide related support.

Additionally, Huawei's FTTR solution provides a cloud-based intelligent management platform, Network Cloud Engine (NCE), for stc, and a mobile app "stc Connect" for stc's subscribers to manage their home network.

"With recent booms in e-learning, gaming, and entertainment content and applications, customers are in urgent need of ultra-high speeds with ultra -reliability all over their houses, and this is what stc intends to deliver to its valued customers", said Eng. Riyadh Alonazi VP for Customer Operations & Experience.

"These types of initiatives such as the FTTR are at the frontier of innovation in an increasingly connected Saudi society. We are proud to support stc as a long-time partner in the Kingdom and look forward to scaling this technology to more premium broadband user's homes and organizations in the future", said Dong Ming, President of stc Global Key account of Huawei.

In the next five years, FTTR will reach to more residential areas and enterprises in the Saudi market, stc will continuously help to develop premium broadband services, and drive the growth of digital applications and smart homes, which are in line with the National Vision 2030.

UAE's Cybersecurity Council to collaborate with Huawei in strengthening ecosystem's capabilities



The UAE's Cybersecurity Council has signed a Memorandum of Understanding with Huawei to collaborate in the strengthening of local strategies and efforts related to cybersecurity. The agreement was signed at the GISEC 2022 cybersecurity conference taking place between March 21 – 23 at the Dubai World Trade Center.

As per the memorandum, both parties will work towards strengthening strategic collaboration in cybersecurity based on the Public-Private-Partnership model. This will help promote cybersecurity innovation, drive development in cybersecurity capabilities, and nurture a strong cybersecurity ecosystem.

H.E. Dr. Mohammad Hamad Al Kuwaiti, Head of Cybersecurity, UAE Government, said: "We are excited to be signing this agreement with Huawei in line with our mission of developing a comprehensive cybersecurity strategy and creating a safe and strong cyber infrastructure in the UAE. This step will also help drive our efforts to establish the UAE as a leading global hub for cybersecurity for the benefit of the nation."

In addition, the agreement aims to create an open, transparent, and trustworthy environment between the UAE Government, Huawei, and other technology vendors.

Aloysius Cheang, Chief Security Officer at Huawei UAE, said: "We are honored to be partnering with the UAE Cybersecurity Council. Huawei is committed to supporting the UAE's efforts as the country accelerates its digital transformation journey. As cyber threats are continuously changing, our agreement with the Council will help us work towards providing a cybersecurity ecosystem that is safe and secure. This partnership will also help recognize Huawei's long-term commitment to sustainable development in the UAE as a top digital hub globally."

As part of the memorandum, both parties have agreed to work together in building visibility and promoting thought leadership in the area of cybersecurity, cooperating in the field of cybersecurity research and development through an independent think tank that both parties will establish, and jointly establishing a Cybersecurity Center of Excellence to deliver talent training that addresses the cybersecurity capacity-building needs for Emiratization.

The partnership comes as spending on security including hardware, software, and services is also on the rise across the region, predicted to grow 7% to USD3.76 billion in 2022 according to IDC.

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The impending opportunities and challenges of Open RAN

In recent years, the telecommunications industry has deliberated on the future of Open RAN as operators around the world continue to advance their 5G capabilities. During this year's Mobile World Congress in Barcelona, several telecom operators in the Middle East also committed to exploring Open RAN's future.

Originally put forward with a great deal of enthusiasm, the practicalities of the model have now set in. This has brought to light the size of the opportunity ahead as well as the challenges that remain in considering Open RAN as a viable method to network management. Many of the arguments so far for Open RAN have proved to be based on expectations rather than real-world case studies.

One of the important focus areas for Open RAN now is network security. The former United States FCC Commissioner Michael O'Rielly was quoted in 2021 as saying that Open RAN might actually create a "less secure" environment, at least in the short term. Others have pointed out challenges because Open RAN works with open-source code, which typically takes contributions from hundreds of programmers. Open architectures that include multiple equipment providers need to be patched together. Experts at Accenture have noted that new interfaces may allow criminals to "move through" the Open RAN environment unless such interfaces are secured according to industry best practices and tested

continuously for loopholes.

This is especially important in the Middle East where 5G advancements have been built upon internationally recognized best standards. Fragmenting this consensus by using implementation methods for RAN sites that sit outside of the established global standards, such as Open RAN, could lead to unintended consequences.

As one example, many of the technologists and vendors working in the 5G domain are complying with 3GPP protocols. They use end-to-end designs that can be easily deployed by operators. From the 2G era all the way through to the current 5G era, 3GPP has focused on interoperability when developing communications standards to ensure connectivity between mobile phones and base stations, between base stations and core networks, and between base stations across different vendors to enable global roaming. 3GPP has never focused on base station implementation methods or architecture.

Cost savings are perhaps the leading motivator of Open RAN to date. For operators, the idea of a more competitive and diverse supplier landscape with lower solution pricing may be appealing. Open RAN may well deliver this. However, with that comes challenges in integrating multivendor platforms and technologies. It may also mean that network operation and maintenance increasingly falls to operators rather than network solution providers, who may be apprehensive about managing other vendors' technologies. The CAPEX related to base stations is also a relatively small portion of an operators' total cost of ownership.

Gulraiz Khalid

In the UK, for instance, experts have contended that by the time Open RAN measures up, 5G will have already been widely deployed. Using it as scale could mean operators having to rip out that 5G equipment and write off the cost, or run an Open RAN network in parallel.

One must remember that Open RAN is not an alternative 5G standard like some people think. In essence, Open RAN is an implementation architecture and technology for base stations. Base stations built on Open RAN architecture and technologies still have to comply with 5G standards and meet carrier requirements regarding power consumption, performance, and cost-effectiveness. Open RAN still needs to resolve several of these issues in order to satisfy market demand.

Overall, the transition to Open RAN is a significant undertaking. Many global experts believe that the industry's existing frameworks and governance approaches still need to be adapted for a more interoperable and open environment if this is to be a success. The tracking of such progress on an international level could help operators in the region to make the right choices if and when the industry matures.

The SAMENA Council Leaders' Summit 2022 to congregate multi-industry leaders in Dubai



Bocar BA CEO & Board Member, SAMENA

Steven Yi President - Middle East & Africa Region, Member of the Supervisory Board - Huawei

SAMENA Telecommunications Council has announced that its awaited annual congregation of Telecoms multi-industry leaders, the Leaders' Summit, will be held in Dubai on May 9th, 2022 under the chairmanship of Saudi Arabia's stc Group and with patronage of the UAE's Telecommunications and Digital Government Regulatory Authority. The Leaders' Summit is an annual leadership event, which encompasses private and government sector leaders' knowledge exchange and progress driven goal-setting discourse among stakeholders from across the ICT/Telecoms as well as other industries and sectors. To be held under the theme "Thriving in the New Opportunity Realm with Resilience", the SAMENA Council Leaders' Summit 2022 will be held fully physically at Atlantis – The Palm. This annual international leadership summit will be hosted in legacy partnership with Huawei for the ninth consecutive year.

Officially announcing the Leaders' Summit 2022 and inviting industry stakeholders to mark their calendar for the important day, Bocar BA, CEO & Board Member, stated: "Leaders' Summit 2022's timing has been linked with and is crucial to the Industry's evolving need for planning new investments in 5G, cloud infrastructure, and in discovering resilience in the new opportunity landscape. Moreover, the Summit aims to signal normalcy in business, and to help open doors for leadership discourse on critical industry, policy, business, and societal matters as digital transformation paces on. After a hiatus of two years, the physical edition of Leaders' Summit is once again ready to welcome renowned global and regional leaders to a platform known for its outstanding multistakeholder engagement, leadership, collaboration, innovation display, and knowledge-exchange in a world- class setting, powered by the Industry's greatest enablers."

"Our objectives in this back-to-business, physical edition of Leaders' Summit is to help demonstrate leadership and commitment of stakeholders to accelerate post- pandemic recovery; showcase participation and relevance of new industries and stakeholders in the 5G and post 5G eras; experience newest innovations in digital 5G-era technologies, network infrastructure, collaboration models, integrated digital service delivery; and to unearth new possibilities for Telecom Operators as well as vertical segments in materializing new business successes", BA added.

Contd. on page 32

teletimes

Etisalat UAE in collaboration with Huawei to jointly launch the first 5G Edge Box in the Middle East

Etisalat UAE part of e& and Huawei have announced the successful test of cloud-native centric '5G Edge Computing platform'. The announcement follows an agreement by both parties to further strengthen their partnership with an aim to be a pioneer in enabling the most innovative digital services in UAE. These state-of-the-art new 5G services underpin Etisalat UAE's commitment to accelerate its 5G monetisation journey while adding more value to its customers.

Etisalat UAE and Huawei believe that the emerging customer digital-first lifestyle demands a greater focus on developing quicker, more intelligent cloud technologies and swift automation that address business and consumer expectations.

Khalid Murshed, Chief Technology and Information Officer at Etisalat UAE, said: "5G Edge Box presents unique opportunities for Etisalat to attain sustainable growth in the B2B segment. The success of this testing activity will support UAE industries and the government sector in achieving their



digital transformational objectives as we deploy a full suite of on-premise private 5G connectivity with inventive digital use cases requiring low latency and extreme reliability. At Etisalat UAE, we are staying future-focussed as we continue to take the lead in the digitalisation of industries through our bespoke 5G and Edge offerings."

A spokesperson at Huawei Technologies, said: "Business transformation with a focus on creating synergies between network and cloud is key to ensuring the sustainable growth of any service provider. Private 5G core and Edge

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Huawei's President of the Middle East & Africa Region and Member of the Supervisory Board, Steven Yi, stated: "The global digital economy is developing rapidly, and over 50% of the global GDP will be digitalized in 2022. Huawei is dedicated to come together with industry partners to share knowledge, experiences, and best practices to continuously create value for telecom carriers and to help enterprises accelerate their digital transformation.

"The ICT sector and in particular 5G, cloud, and digital power will play a vital role in tackling sustainability needs of the Telecom industry and its contributions to other industries. It is essential to keep building onto past successes in terms of dialogue, timely decision-making, and innovation, so that momentum in the region 5G development can be maintained. Huawei is committed to innovation, and we highly value the need to work together to address the issues that our industry and our world face, and drive our collected work towards meetings the region digital future requirements. Leaders' Summit 2022 is a platform, which supports stakeholders' commitment to understanding and adjusting to new realities and to setting new goals in digital development", Yi added.

Leaders' Summit 2022 will welcome Chairmen and CEOs from the private sector, and top decision-makers from regulatory authorities and global bodies and institutions, spanning multiple geographies. It will also include participation of global leaders and entities focused on institutionalizing and fostering cross-sector digitization and collaboration, making the Leaders' Summit the year 2022's premier virtual destination for leadership, dialogue, demonstration, and for refining future policy and regulation. The past four and in particular the last two virtual editions of Leaders' Summit delved into the fast-unfolding reality of digitalization in the era of 5G, with Connectivity, Digital Infrastructure, Cloudification, Artificial Intelligence, Internet of Things, Data Centers, Optical Networks, IPv6/IPv6+, Investment Incentivization, and Policy as well as Regulation taking on whole new dimensions. The four-year focus on "5G" from multiple angles is now at a stage at which "Integration" is merited - for technologies, private and public clouds, data processing systems, communications infrastructure, sustainability-led approaches and priorities, as

well as discussions and strategies to move forward. Leaders' Summit 2022 will build the case for taking 5G discussion beyond connectivity to real-life innovations and impact for the business and the society.

5G and Cloud

Accelerating Telecom ToB Business

Among the global telecom operators, the early adopters of 5G networks in the Middle East, China and South Korea have seen initial success, with operators in China achieving 14% and 11% growth in revenue and profitability, and in South Korea increased 5% and 40% respectively. In the Middle East region, Kuwait, the country with the earliest and fastest 5G development, achieved 4% growth in revenue and 13% growth in profitability. There are more than 9 million 5G users, including about 900K 5G Fixed Wireless Access (FWA/B2H) users. However, the new players, which are mostly the Over-The-Top (OTT) service providers have been emerging for a while and will continue to challenge telecom operators in their consumer market, causing revenue stagnation.

Telecom operators have recognised the risk of consumer revenue erosion caused by the OTT. To tackle these, telecom operators were quick to penetrate in to the enterprise business. Leveraging existing connectivity and network infrastructure operators have traditionally offered B2B services with SLA backed products and services such as voice, internet, networking, vendor IT/IP services and equipment reselling. By focusing on B₂B services telecom operators have been able to monetize and use the existing infrastructure deployed for consumers but provide customized high-performance services at a bigger scale and a much better price margin.

By offering this suite of traditional ToB services, telecom operators have been able to historically unlock new revenue and position themselves as trusted ICT service providers for both public and private organizations. However, with the advent of fourth industrial revolution and changing of industry ICT spending, telecom operators have had to revamp their ToB offerings to stay relevant and to compete with other leading ICT providers.

To differentiate their offerings and





By - Saurabh Verma - Director ICT & Sami Shaikh - Consultant ICT Frost & Sullivan

demonstrate their capability to support vertical specific solutions and use cases, telecom operators around the world have started offering enterprise cloud solutions and are also heavily leveraging their deployed 5G infrastructure to offer advanced and more efficient B2B services. With a market that is forecasted to reach close \$181.35 billion by 2030, growing at a CAGR of 14.8% from 2021 to 2030, the B2B opportunity for telecom operators in huge.

Leveraging 5G and Cloud to Unlock New B2B Opportunities

As IT maturity improves, enterprises will need to deploy new technologies to digitally transform their business and deliver better services and improved process efficiency. To be successful in digitally transforming their business, enterprises will heavily rely on the capabilities of cloud solutions to store, analyse and make data highly available across all locations. Additionally, to fully realise the capabilities of advanced cloud solutions, 5G will play a key role in ensuring large amounts of data is transferred, analysed and sent back to the user at very high speeds. This synergy between 5G and cloud has enabled advanced use cases like predictive maintenance, automated

guided vehicles and smart manufacturing. As enterprises across industries continue to undertake digital transformation initiatives, the demand for cloud and superior connectivity services has continuously grown. Telecom operators have capitalised on this growing demand and have diversified their service portfolio to include advanced cloud solutions and enhanced services that are delivered using 5G network infrastructure.

GCC Countries have seen an early adoption of 5G technologies in B2B, with development in 5G DA and virtual network style of deployments

5G Backed Innovative B2B Services

Key verticals like Manufacturing, Retail, Energy & Utilities and Healthcare demonstrate many addressable opportunities for 5G-powered IoT transformation, and telecom operators are already rising to these new challenges by offering innovative B2B products and services.

DIA over 5G

Dedicated Internet Access (DIA) which

teletimes

is a SLA back dedicated high speed enterprise internet connection provided by telecom operators, was traditionally delivered over Microwave and Fiber. However, with 5G enabled infrastructure in place, telecom operators like leverage their 5G deployments to deliver enhanced uninterrupted DIA services to the enterprise customers. Moreover, the ability of 5G to enable and support use cases requiring high speed, low latency and high reliability, it has quickly emerged as a preferred access type to deliver DIA services to enterprise customers. Operators in the Middle East have been quick to launch 5G DIA services aimed at the enterprise market. The quality of service delivered over 5G has significantly pushed enterprises in the region to adopt DIA services from operators who are delivering this service using 5G. The success of DIA over 5G is evident from the fact that more than 20,000 5G leased lines have been installed across Middle East have helped operators increase their ARPU by atleast 5-10 times. Moreover the use of 5G leased lines in projects such as 5G leased line plus mobile video in Dubai's large-scale event campus and 5G plus smart devices in education projects in Kuwait, have brought great social values in addition to revenue.

As enterprises continue to deploy Industry 4.0 use cases, organizations have strong demand to have uninterrupted dedicated connectivity that can support these deployments while maintaining security. In addition, these deployments need highspeed internet, high reliability, ultra-low latency, and the ability to support a large number of devices at the same time. These requirements motivated telecom operators to leverage slicing capabilities of 5G to carve from their 5G deployment a virtual network that is dedicated only for one specific enterprise use.

To distinguish themselves from their competitors and achieve process efficiency, industries in all key verticals are rapidly deploying Industry 4.0 uses cases. To successfully deploy and reap the benefits of these advanced Industry 4.0 use cases organizations need to implement several emerging technologies that need to work in harmony to truly unleash the potential of these uses cases. For these emerging technologies to seamlessly work and interact with one another they require uninterrupted dedicated connectivity that is highly secure and has the capability to

deliver high-speed internet, high reliability, ultra-low latency, and can support a large number of devices at the same time. These complex and demanding requirements arising from the Industry 4.0 use cases cannot be met by traditional internet connections delivered over 4G or LTE. Thus, only the telecom operators who had already deployed their 5G infrastructure have been able to cater to these requirements which have allowed them to unlock a highly potential stream of revenue. These innovative telecom operators were able to leverage the slicing capability of 5G to carve out from their existing 5G deployments a Virtual Network that is dedicated for a particular enterprise and has ability to support all of its complex use cases.

5G Virtual Private Networks

Virtual Private Networks are dedicated private networks carved out from existing 5G consumer network and can only be accessed by devices belonging to a particular enterprise. Given the quick commercial roll out of 5G services in the Middle East, operators have been able to explore the B2B opportunities by positioning 5G Virtual Private Networks. Currently, in the Middle East, three 5G virtual networks are in operation that provides connectivity for eight 5G industry use cases, such as:

- Drones and vehicle-mounted cameras are using 5G connectivity to improve campus security.
- 5G has enabled the use of AI and realtime HD video in checking the health and safety status of on-site workers in remote and hazardous locations. This has helped organizations in improving personnel safety, maintaining safe working conditions and ensures HSE compliance.
- AR platforms driven by 5G allow experts to efficiently guide remotely located onsite workers to tackle complex problems without being physically present on-site. This saves cost of dispatching experts to remote sites.

These 5G use cases have been deployed in Digital Oil & Gas and Smart Port and can be replicated in more industries. They have brought new revenue streams to the telecom operators and have enabled them to participate further in the digital transformation of some of the key sectors. The emergence of 5G presents a brilliant opportunity for telecom operators. By leveraging their installed based and trust built with clients over the years, telecom operators are using 5G to ramp up their B2B offerings and create new ecosystems in which they can operate. However, to be able to support more use cases and offer new innovative B2B services leveraging 5G, telecom operators in the region must continue to strengthen and expand their 5G infrastructure and continue invest in new technologies.

Cloud Unlocks Multiple B2B Avenues for Telecom Operators

Cloud has been the catalyst for digital transformation in many organizations. From simply storing data on the cloud to having advanced or critical run applications on cloud, enterprises have realized the value and benefit of this technology. Today cloud takes a centre stage when it comes to deploying any new technology or advanced Industry 4.0 use cases. Telecom operators who have invested in setting up their datacentres have been able to leverage their connectivity infrastructure and datacentre assets to offer cloud services to their enterprise clients. However with growing IT maturity and rapid digital transformation enterprises are demanding for advanced cloud solutions specific to their vertical. Thus telecom operators have had to look beyond traditional cloud services such as Hosting, Disaster Recovery & Back-up etc. To keep up with this evolving demand and to position themselves as an Industry specific ICT provider telecom operators have significantly invested in new cloud technologies and have also partnered with hyperscalers like AWS and Azure and other cloud-based technology providers thereby acting as system integrator for their solutions.

Cloud services and solutions have always brought in the biggest share of revenue for telecom operators who offer cloud solutions as part of their B2B service portfolio. This trend will continue to dominate even in the coming years, owing to growing adoption of cloud-based telecommunication services across various industries. In 2021, the Middle East Cloud market stood at US \$2.3 billion posing a massive opportunity for cloud providers in the region, this market is expected to further grow and reach a staggering US \$5.6 billion by 2025. The cloud presents a fantastic opportunity for telecom operators who can penetrate the market



by aligning their services and offerings with cloud strategies of enterprises. Telecom operators should engage with enterprises in the following ways:

• 'One-to-One' Approach.

As part of this approach, telecom operators can provide a private onpremises cloud by positioning a BOT model (Build, Operate, and Transfer), comprising of system integration and managed services. This approach will collaboration and leverage operators' 5G, ecosystem and partner, campus network, professional service, managed service, and consulting capabilities to provide endusers with comprehensive and competitive solutions, empowering the industry digitization.

Telecom operators have an advantage over other providers when it comes to deploying the '**One-to-N'** or '**N-to-N'** approach.



particularly benefit enterprises with more strict requirements on security and realtime services and have the intention to invest in an enterprise edge.

'One-to-N' Approach.

This approach uses the telecom edge where the datacenter availability is within the country. A cloud platform for centralized management needs to be built, corresponding to a cloud stack solution. This approach will also allow large enterprises, governments, finance industries, etc., to share within the country platform, with moderate security and service requirements. Operators can provide reliable infrastructure and XaaS to end-users leveraging their capabilities and ecosystems to provide end-to-end cloud solutions.

'N-to-N' Approach

With the help of public cloud, in this approach, operators can integrate cloud services for an enterprise, in collaboration with multiple cloud providers. The principal value proposition of this approach is service availability. In addition, public cloud cooperation helps operators develop new markets, brand recognition. Moreover, this approach can also be used to build the foundation for developing the One-to-One approach.

In comparison, with the second and third approaches, operators have more advantages than other providers who can fully leverage the value of cloud-network Telecom operators can fully leverage the value of cloud-network collaboration and their 5G ecosystem which includes partners, campus networks, professional services, managed services, and consulting capabilities. Thereby, providing end-users with a comprehensive and competitive solution, empowers digitization in enterprises.

As the cloud industry is rapidly changing, so is the adoption of cloud services evolving, enterprises today are adopting multi-cloud and hybrid cloud setups to cater to their requirement. It is expected in the coming years each enterprise will have atleast five different cloud deployments. This change in adoption models creates two main challenges:

- Accessing multiple cloud networks would need multiple private lines, which often results in multiple subscriptions and slow provisioning. In many cases these separate subscriptions may not have similar and standard services or costs and could take as long as 2-3 months for service provisioning.
- Best-effort networks cannot guarantee the Quality of Service (QoS) required by enterprise customers. Also in many cases cloud service providers often lease the connectivity resources from operators, which cannot treat the service requirement differently but can only conduct best effort forwarding based on fundamental principles which cannot guarantee SLAs

However, by using one-stop cloud network synergy solutions, telecom operators have the unique advantages to address these issues in enterprise multi-cloud access. Enterprises only need to negotiate services with one operator and can have the network and cloud access services provisioned quickly from end to end. Telecom operators looking to grow their B2B business need to offer innovative and competitive cloud solutions to ensure revenue growth. Cloud has in the recent past and will continue to capture the biggest portion of the B2B revenue for a telecom operator.

The Way Forward

Over the years telecom operators have built capabilities in deploying, running, operating and optimizing network in a secure and a reliable manner and have ultimately built a strong position in the market with both infrastructure assets and a foundation as a secure and trusted provider offering B2B services. This has in turn helped them, win business from Governments and large enterprises.

However, to stay completive in the market and maintain a leadership position, telecom needs to offer advanced cloud services while leveraging innovative 5G use cases. Although telecom operators are transforming their business, the transition from a telecommunications provider to an integrated ICT services company can often be challenging. To quickly launch new services for enterprise customers, telecom operators should continue investing in new technologies and strengthening their infrastructure layers such as 5G, Optical networks, Datacenters, and cloud infrastructure. As enterprises continue to improve their IT maturity and digitally transform their business, their expectations from their telecom service providers are evolving. B2B customers expect the ease of self-service and convenience. They want to work with providers with existing relationships and with ones who specialize in their verticals and can offer industryspecific solutions. While 5G has broken into the enterprise market in the Middle East, it has yet to succeed in the enterprise high margin services that occupy a large share of its ICT spending. The telecom industry can unlock more capabilities and play a more critical role in the digital transformation of enterprises. 🖬

FinTech in Pakistan is flourishing like anything

Ahmed Shahab Nasir CTO JazzCash, Pakistan

Interview: Khalid Athar

"Huawei is the leader when it comes to banking and wallet solutions available in the marketplace. JazzCash has a very strong relationship with Huawei Technologies as JazzCash has continuously been supported by Huawei," this was expressed by Ahmed Shahab Nasir, CTO JazzCash Pakistan. Shahab was talking to Teletimes International during an exclusive interview in Mobile World Congress 2022 Barcelona.

He said, "I could not begin to imagine if my core platform was not this robust, if it was not this stable. I would never be able to focus on my agility and other time to market for my products so easily if I even have to worry about the availability of my core platform. So my core platform is very good because Huawei has a tremendous solution. It's not something that I need to be persuaded for, and it's something I'm pretty convinced of. I've used other wallets in the past. If you look at my career, it's the fourth mobile wallet platform I'm working on, so I can put a very easy comparison between the four platforms that I've been using and clearly, Huawei is the leader when it comes to banking and wallet solutions available in the marketplace."

Teletimes' questions and Shahab's responses are presented below for the interest of readers.

We have doubled the mobile app users last year and we will double it again this year.



Question: What are the unique needs of Pakistani consumers when it comes to mobile wallets and financial inclusion?

Answer: If you look at Pakistan, about 110 million adult population is unbanked today. For a normal Pakistani person who is unemployed or has a job that is not listed as an approved job, it's very difficult for him to open a bank account in a traditional bank. How we are changing this situation is by offering a bank to everyone. What we have been doing is banking the unbanked people.

If you look at the volumes of people that we have been able to bank in the last couple of years; we have 15 million active customers today, more than 15 million in fact. And rest of the country's entirety in totality has 34 million, including us. If you remove all these FinTech like Telenor EasyPaisa and other smaller players, rest of the industry does not even offer 6-7 million wallets, so we are the biggest contributors here.

Q: Where do the majority of the people belong to? The rural areas or urban areas?

A: In fact, the rural area never had any option, so, they only rely on JazzCash mostly. Many people in rural Pakistan have opened an account with JazzCash or another FinTech competitor. But in the urban area now it's very popular because our payment portfolio has enhanced tremendously. We have over 2000 merchants who accept payments in form of JazzCash. So that's a change in driving factor.

Q: How can mobile wallets like JazzCash help to fill the gaps in Pakistan's financial landscape? And what do you think are the benefits of using a mobile wallet over traditional methods such as cash or cards?

A: As we are basically banking the unbanked, the biggest thing that we are doing for the economy is converting cash into digital money. So every year if you look at the number, we are converting more than 800 billion PKR from cash; money that is otherwise floating as physical money, is now being used in e-wallets. So that's the biggest favor we are doing to the society in general, number one. Number two is, of course, we are offering banking for everyone, we do not discriminate over who you are, your profession or other factors which traditional banks consider but we do not discriminate on such factors.

Q: In addition to my previous question, what do you think is the potential for FinTech in Pakistan?

A: It's huge, it's growing and it's flourishing like anything, I think we already have a huge base of customers. What's more important is that we need

inclusion in Pakistan?

A: Moving forward, maybe it would be something in insurance sector, in tech sector. These are the areas whereby we should be able to assist our customers in the future. And right now the focus is of course to grow further and further into lending. We want people to be able to take loans where and when needed. It should be very easy to access.

Q: What challenges do you see in terms of expanding mobile wallet in JazzCash usage?

We have a very strong relationship with Huawei. JazzCash has continuously been supported by them.

to focus on giving users more reasons to spend through their wallet instead of doing cash transactions. In general, I think the potential to grow in terms of revenue is ten times in the next two to three years. This is the kind of potential that I certainly see in terms of revenue, in terms of growth, we will still grow maybe 20% to 30%. Growth is very easy for next one year or two years in terms of wallets. And of course, the major transformation will be occurring when we are actually moving our legacy customers from the old traditional channels of USSD to digital channels of a mobile app. This is the biggest transformation which is happening very recently. We have doubled the mobile app users last year and we will double it again this year. Q: How important do you think is it for

companies like JazzCash to support initiatives like financial inclusion?

A: We are all about financial inclusion. This is the only thing - this is our agenda. This is the shout that we take since day one and we are complying with this shout. Also, people appreciate us for the same reason.

Q: Are there any other areas where JazzCash could help to promote financial

A: The change in regulations. The regulatory body plays a very important role when it comes to this thing. So the regulatory body will keep on coming up with new policies all the time. Until today, so far, very recently, we have been able to successfully drive these changes in the policy itself, so we are very close to the policymaker now. We do push them and do give them the right direction which will support the business to grow customers, to be able to access the money. So if these policymakers stay in the support of letting these kinds of businesses grow and their agenda is the same as ours, which is financial inclusion, it should be okay.

Q: What else do you see happening in the FinTech space in Pakistan in the next few years?

A: In the next few years, I think the biggest thing that is happening is the "Raast" program. Raast is one of the initiatives by the central bank again and what they're trying to do is simplify the journey in terms of instant transfers. They want to make it mandatory for all the banks to support instant transfers and in general, Pakistani banking industry looks good in the coming future. ■

Thaicom, SpaceBridge and WTD to provide High-Speed BB Connectivity in Indonesia

Thaicom, a rewarded Thai Satellite Operator, provider of the capacity of IPSTAR, the world's first high-throughput satellite (HTS) in partnership with SpaceBridge Inc., a Canadian corporation, the OEM designer and manufacturer of VSAT platform, of broadband satellite communications systems technology, and WTD, a rewarded Indonesian ISP, allowing for high-speed connectivity anywhere in the Indonesian territory, has announced the delivery and commissioning of an HTS multiple spot beam (MSB) Ku-band broadband VSAT network. SpaceBridge Inc., Thaicom and WTD are providing the end-to-end solution based on the in-country managed services. The network delivers services over IPSTAR Satellite, enabling communities, Mobile Network Operators (MNOs), enterprises, consumers, hospitals, first responders, government and defense entities to transmit true real-time internet applications data over satellite, with the highest level of service assurance and quality of experience, unlike traditional provisioning of competing services in the country.

Patompob (Nile) Suwansiri, Thaicom Chief Executive Officer, commented, "We would like to thank SpaceBridge Inc. and WTD for their trust in us to provide the HTS capacity needed to support the expansion of communications infrastructure for Indonesia. As the world's first high-throughput satellite (HTS), we believe that IPSTAR capacity will provide customers with an enhanced



Patompob (Nile) Suwansiri Chief Executive Officer - Thaicom

broadband satellite service experience. On top of that, we are confident that this agreement will strengthen our regional partnerships and accelerate economic growth across Indonesia. "

"We are pleased to be part of this important infrastructure build-up and contribute with our latest technology, along with two major players in the territory. The three parties' combination of latest highest efficiency and availability HTS technology, Advanced HTS Ku-band Satellite and superior service delivery through local ISP as WTD, will bring an excellent quality of service and great experience to the Indonesian



David Gelerman CEO & President -SpaceBridge

community", said David Gelerman, SpaceBridge Inc. CEO and President.

"We are very optimistic with our international cooperation between Spacebridge, IPSTAR satellite and WTD, that can open a wide range of opportunities, especially for the Indonesia area. Indonesia is an archipelagic country where millions of people still desperately need to cross the digital divide, acquire the internet connection to improve their quality of life. We believe that our Advanced HTS based VSAT network solution can provide enormous benefits to the people of Indonesia presently and years ahead," says Wahyu Dirgantoro, WTD Managing Director.

Intelsat and MaxIQ launch 2nd year of STEM Learning

Intelsat is bringing the love of space to teenagers across the African continent by welcoming 30 new students to the second year of MaxIQ Space (formerly Xinabox) Space STEM (space, technology, engineering and math) program.

The popular and intensive program culminates in students designing, building and launching satellites into space. This unique opportunity is entirely virtual, with each student receiving a STEM kit and engaging in virtual workshops delivered by space education specialists.

In the second year, Intelsat expanded the program to include 30 students from all over the continent including South Africa, Rwanda, Nigeria, Egypt and Uganda. "We are proud to renew and grow our partnership with MaxIQ Space in Africa and build the pipeline of the next generation of satellite engineers," said Hans Geldenhuys, Director, Sales-Africa, Intelsat. "Sparking that tech interest at such a young age inspires future leaders who will soon lead the way with advancements we never dreamed possible," he continued.

During last year's mission, students used the MaxIQ modular electronics space STEM kits and educational programs to design and build satellites that could feasibly launch into space. In the final project, students used their satellites to monitor the sustainability of the planet, following U.N. Sustainable Development Goals. Participants learned about climate monitoring, as well as transportation and methane pollution.

Airbus showcases innovation and highlights its commitment towards localisation at Saudi Arabia's World Defense Show



At the World Defense Show held between 6-9 March in Riyadh, Airbus showcased a wide range of products, cutting-edge technologies and innovations that are shaping the future of aerospace.

The show was held biennially from its debut edition in March, supporting the development of a sustainable local industry, in line with the Kingdom's vision to localise 50% of its military expenditure by 2030.

The event will be an opportunity for Airbus to highlight its commitment towards driving localisation and demonstrate its strong presence in Saudi Arabia, underlined by strategic partnerships that develop local industries by providing expertise, services and products to fulfil the objectives of customers and partners in Saudi Arabia. Today, Airbus employs 350 people in the Kingdom, from more than 30 nationalities. More than 30 percent of the company's employees in KSA are Saudi nationals.

Mikail Houari, President, Airbus Africa and Middle East commented: "For several decades, Airbus has been working closely with Saudi Arabia's aerospace industry. We are proud to have developed strong partnerships with government entities as well with organizations within the civil and private aerospace sectors. Our focus at this year's World Defense Show is to showcase the positive impact of localisation for the development of skills, creation of jobs and ultimately contributing to the economic development of the country, in line with Saudi Vision 2030."

The event was an opportunity for Airbus to demonstrate its strong presence in Saudi Arabia, underlined by strategic partnerships that develop local industries by providing expertise, services and products to fulfil the objectives of customers in KSA.

Airbus has recently signed several agreements in Saudi Arabia, whether in the form of joint ventures or transfer of knowledge MoUs. These include a joint venture with Saudi Arabian Military Industries (SAMI) for military aviation services and maintenance, repair, and overhaul (MRO) capabilities and a MoU with Prince Sultan Aviation Academy for aviation training opportunities.

Airbus has been present in Saudi Arabia since the 1970s and has initiated a number of strategic partnerships in the country that have contributed to the development of the local industry. It has a strong presence in the military and government space, while in the commercial business, Airbus aircraft is the aircraft of choice for all the Saudi Arabian carriers.

Building "Cybersecurity Readiness" culture critical, experts warn at GISEC Global 2022

The 10th edition of GISEC Global, the largest and most influential cybersecurity exhibition and conference in the Middle East and Africa, opened 21st March at Dubai World Trade Centre (DWTC) as industry leaders unite to uncover the latest in global cybersecurity trends and discuss ever-increasing digital challenges.

Delivering the keynote speech on the first morning of the three-day show, Dr Mohamed Al Kuwaiti, Head of Cyber Security, United Arab Emirates Government, discussed the shared responsibility required to tackle the volatility of cyberspace and how collaboration is essential to successfully protecting against global cybercrime.

"If we look at the current landscape, awareness and collaboration are key to building a culture of cybersecurity readiness," said Al Kuwaiti. "We need to innovate and work towards building the next generation of cyber security professionals. The UAE Cybersecurity Council has a timeline and the plan is to export the UAE's cybersecurity model across the region.

"As the world starts to recover from the pandemic, big industry – education, healthcare, oil and gas, aviation, etc. – is going through rapid digital transformation. Their security is our security, and the more they are secure, the more we are secure. Cyber-attacks aren't bound by borders, so neither should be our approach to private sector and government collaboration."

That collaboration can be epitomised by the UAE Cyber Security Council's National Bug Bounty Programme, where 100 ethical hackers will work in real-time at GISEC Global to hack, identify, and solve software flaws discovered across different scenarios and mainframes – including electric cars, mobile phones, and drones.

Among the speakers on opening day, Stephen Kavanagh, Executive Director of Police Services at Interpol, delivered his



address to the industry discussing how the public and private sectors must play collaborative roles in the response to cybercrime.

"Today, we find ourselves in a new world," said Kavanagh, the former Chief Constable of Essex Police in the United Kingdom. "We need a clear vision where all parties work together. Interpol is increasingly bringing data and expertise from the private sector to assist law enforcement. It is unrealistic to think law enforcement can recruit and retain the best brains, so that is where they turn to the private sector."

Also speaking on the main stage was MK Palmore, the former Head of the FBI's San Francisco Cybersecurity Investigative Branch. Palmore outlined how global development is forcing businesses to reassess their priorities to prevent largescale cyber-attacks.

"By 2025, 42 billion devices will be connected to the internet," Palmore said. "This is a huge expanded digital surface area to protect, so offers huge opportunities for cyber criminals. It is no surprise then that, from an infrastructure and security standpoint, our reliance on digital services as we look to maintain society and business operations has become the No1 issue for organisations."

During the next two days, conference attendees will continue to hear from a host of prominent speakers, including renowned hacker Jayson E Street; Mesfer Almesfer, Chief Information Security Officer, NEOM; Professor Isa Ali Pantami, Federal Ministry of Communications and Digital Economy, Nigeria; and His Excellency Amir Hayek, Israeli Ambassador to the UAE and Ministry of Foreign Affairs, Israel, among others.

Running from March 21-23, GISEC Global will host more than 200 high-calibre speakers, including national cybersecurity leaders, tech pioneers, policymakers, researchers, and intelligence heads. Presentations will run across five stages, covering cutting-edge technologies and analysing the most-pressing cybersecurity challenges. As part of the packed agenda, the UAE Cyber Security Council will also host the Global Cybersecurity Congress, an annual gathering aimed at unifying efforts on local, national, and global cross-sector levels.

"e& transformation into a global technology conglomerate is backed by strong financial performance," Chairman



Jassem Mohamed Bu Ataba Alzaabi, Chairman of e&, has highlighted that the Group's strong financial performance and stellar business results across the markets where it operates have placed it on solid footing start a new chapter of success.

The Chairman was speaking at a Media Majlis on 26 February 2022, where the Group shared how well-placed it was to drive its aspirations through specialist business pillars.

This multi-billion dollar business has seen a series of victories since it started operations in 1976 as the first telecom company in the UAE. The Group was named the strongest telecoms brand in the world in January 2022. It also took first place in the Forbes MENA Top 10 most valuable listed companies in the UAE. More recently, it reported a solid net profit of AED 9.3 billion in 2021, a 3.2% increase year on year. It's also seen a jump of 3.0 % increase in its aggregated subscriber base to 159 million.

The Group has also been aggressive in its acquisition strategy and in its pursuit of strategic partnerships that are set to revolutionise the business landscape. Jassem Alzaabi said, "Our exemplary financials and strong standing in the market demonstrate our strength and capability to take our success to new heights as we refocus our efforts in investing in breakthrough technologies, accelerating in-depth market penetrations and capitalising on solid ventures with key industry players.

"Moreover, the digital revolution and its impact on the business world has given us ample confidence to expand even further through the business pillars," he added.

Looking ahead, the Group is in a privileged position in the MENA region to capture regional growth opportunities while looking into markets beyond the region. e& possesses an undisputed market position across the MENA region with an ICT market size across the UAE, Saudi Arabia, and Egypt, three of its key markets, expected to grow by more than 15% annually from 2020 to 2025. Moreover, the business landscape has seen an explosive rate of digital disruption, with significant digital white spaces remaining in the MENA region.

Jassem Alzaabi highlighted what needs to happen for the Group to ride the change.

He said: "Driven by our track record of success and milestone achievements we have witnessed so far, we are confident in leading the digitalisation conversation. It is our determination to accomplish more for the benefit of our customers and shareholders through our commitment to enhancing the quality of our solutions and services. We are the bridge builders who have mastered the art of combining our scalable technological competencies with our robust telecoms expertise so that we can drive positive change for our customers, unlock more shareholder value and strengthen our global presence.

"Through our main business pillars, we are creating a future-ready business model that celebrates our past and embraces the opportunities ahead of us."

Business pillars driving the Group's aspirations

The Group's specialist business pillars are its strategy building blocks as it sets on its journey to build a brighter, digital future.

Telecoms

The Group's growth engine, Telecoms is set to

accelerate its growth to enable its expansion into new geographic markets while boosting operational performance in existing markets.

With a strong presence in 16 countries across the Middle East, Asia and Africa, this business operation will explore new geographies through building strong partnerships and scaling synergies in the telecom industry. In the age of 'connectivity renaissance,' its innovation, imagination and implementation of ideas will drive smart connectivity and maximise value creation for all its customer segments.

With a progressive mindset, Telecoms will drive brand equity and boost global customer satisfaction, achieve synergies of scale, expand its digital services and explore adjacent businesses, thus abiding by its promise to deliver outstanding customer experiences at all times.

e& life

This business pillar brings the next-gen digital world to the fingertips of its customers via a state-of-the-art 'super app' marketplace. It aims to target specific consumer segments and advance new business growth opportunities, amplifying innovative consumer digital offerings across the board.

As the major value contributor to the Group, e& life will play a critical role in driving its consumer's digital future via a suite of carefully curated consumer products and smart connectivity platforms.

The 'super app' marketplace, e& life provides customers with cutting-edge lifestyle services, from online food ordering and entertainment (through majority-owned platforms) to retail, mobility and finance.

e& enterprise

Combining the agility and expertise of a digital managed and professional service company with the strength and reach of a telco, e& enterprise is leading digital transformation and accelerating digital adoption for corporates, governments and large organizations.

Through Cloud, Cybersecurity, Internet of Things (IoT), and Artificial Intelligence, it is propelling organizations and economies towards a smarter, safer and more sustainable world. With a successful track record in designing, delivering and operating large digital projects and solutions using intelligent and secure cloud platforms, e& enterprise provides comprehensive services in consultancy, business modelling, solutions design, program management, execution, delivery and post-implementation support.

e& capital

Focussed on bringing a better, alternate future, e& capital is investing in the ideas and people that will take us there. Acquiring, growing and supporting the visionary tech businesses that are moving this world forward.

e& is working on long term financial growth, choosing technology investments that will create high returns, and companies that fit it with the Group's aspirations.

Resilient business model underpinned by strong financials

Hatem Dowidar, Group CEO, e&, further explained the successes that the Group has had in maximising value from the core, expanding and solidifying its regional footprint leadership, as well as the strong financial results. He stressed the importance of embracing a progressive outlook, harnessing a growth mindset to see beyond the world of telecoms so as to create a bright, digital future.

He said: "Technological disruption brought with it winds of change that we've never seen before. Instead of us standing at the crossroads, wondering what to do next, we started to ask, "How can we capture and accelerate growth and still stay strong and successful?" The answer is plain to see. Our quest to go beyond the realms of telecom exhorted us to ideate, design and deploy solutions that would transform the lives of our customers and advance the digitalisation journey of enterprises.

"Part of this journey involved us taking massive steps to explore adjacencies, looking at how we can create focussed digital units, building strong partnerships and exploring collaborative opportunities that would attract out-of-industry partners and investors. We are pleased with the progress made thus far, indicating that the Group is ready for growth, quipped with clear strategic imperatives that will accelerate digital transformation," he added.

Embedding sustainability at the core

Dowidar spoke at length about the importance of understanding how the work at e& changes people's lives at every touchpoint. In his parting words, he said: "While our robust financial performance has given us a clear snapshot of our readiness to embark on this new journey, we are also constantly focussing on how our work impacts people's lives. One of the key reasons that we have been able to rise to any challenge and stay agile constantly, is because we believe that we are making a difference in the lives of millions. Enhancing customer experiences and empowering societies have always been our driving forces in everything we have done in the past and what we will achieve in the future.

"We will continue to step up and innovate at every opportunity presented to us in a time of accelerated digitalisation," he further said.

Commenting on the Group's commitment to the critical role of living by sustainability principles, Dowidar highlighted that they have put several measures in place to address the footprint across the board. E&'s ESG rating was upgraded from 'BBB' to 'A' by MSCI Global Index, after it launched the sustainability framework and enhanced policies in line with international best practices.

Dowidar said: "To continue to deliver on the agenda of sustainability, we have joined ICT sectors for Paris Agreement commitments to Net Zero emission by 2050. We are also looking at accelerating the decarbonisation of activities by reducing GHG by 2030. We have a clear responsibility to drive sustainable operations for the sake of the future generations and so we will do what it takes to tackle issues such as climate change, global warming and environmental conservation."

Moving forward, e& will embark on the next wave of core transformation in the UAE telco business to de-risk against market headwinds. Scaling synergies for international expansion will be driven by diversifying footprint risks and reducing home market dependency. Last but not least, a more transparent and agile business model is in the works to open doors for more strategic partnerships, investments, and M&A opportunities.

Consortium comprising e&'s E-Vision and ADQ to acquire a majority stake in STARZPLAY ARABIA

E-Vision, from e& (previously known as Etisalat Group), and ADQ, an Abu Dhabibased investment and holding company, has announced the signing of a binding agreement to acquire a majority equity stake of circa 57% in STARZPLAY ARABIA, a leading Subscription Video on Demand (SVOD) and streaming service provider in the Middle East and North Africa.

The e& led consortium will acquire a controlling stake in STARZPLAY ARABIA based on a post-money valuation of USD 420 million, while also investing E-Vision's existing stake and secondary investments to join the other existing shareholders, including STARZ and SEQ Investors. STARZ and its parent company Lionsgate will maintain commercial agreements for content licensing to the venture. The transaction remains subject to regulatory approvals and certain administrative procedures.

Khalifa Al Shamsi, CEO, e& life, and Chairman of E-Vision, said: "STARZPLAY ARABIA is a leading video streaming platform in MENA. This acquisition is a major milestone for E-Vision and will be a catalyst for the newly formed e& life consumer digital vertical in e&. This investment further strengthens our service offering and significantly enhances STARZPLAY ARABIA's positioning across the entire MENA region. Streaming platforms have drastically changed the way we consume media and have become commonplace in households around the world. Consumer expectations have also grown in line with this expansion as the demand for high-quality content and seamless streaming continues to rise.

Al Shamsi added, "STARZPLAY ARABIA is a great platform for us to work closely with to customise the content options for our customers. With 5G's super-fast download speeds and low latency, we have the perfect opportunity to drive the streaming experience to new heights with viewers being able to have immersive experiences within their favourite shows and movies using Virtual Reality (VR) and Augmented Reality (AR). This new development is expected



to accelerate E-Vision's transition from focusing on the telecom network business to providing also Direct to Consumer (DTC) streaming services to consumers across the

MENA region."

Jaap Kalkman, Group Chief Investment Officer at ADQ, said: "The investment in STARZPLAY ARABIA provides ADQ access to one of the leading Subscription Video on Demand and OTT service providers in the region. With its state-of-the-art technology, distribution strength and compelling and engaging content, STARZPLAY ARABIA has developed a unique market positioning in the MENA region and is well positioned for further growth."

Jeffrey Hirsch, President and Chief Executive Officer of STARZ, said: "We're proud of what Maaz and the team have built over the past few years, creating one of the pre-eminent SVOD platforms in the Middle East and North Africa. STARZPLAY ARABIA marked our first international initiative at a time when streaming internationally was still nascent. It served as a template for growth that allowed us to rapidly scale the STARZPLAY brand around the world now in over 60 countries. We're pleased to continue our productive partnership with E-Vision while adding ADQ to the venture, partners whose local market expertise will help us continue to accelerate the growth of the business together and create enormous value."

Maaz Sheikh, Chief Executive Officer & Co-founder of STARZPLAY ARABIA, said: "STARZPLAY ARABIA has transformed the region's entertainment sector, bringing truly homegrown competencies to serve the fast-growing demand for streaming services. The investment by E-Vision and ADQ will enable us to grow further by focusing on original content production and advanced customer personalisation. We thank them for their trust in our vision as well as our shareholders STARZ and SEQ Investors for originally backing our idea and enabling us to turn our start-up aspirations into a flourishing business reality. Their continued support, along with the exceptional strengths that E-Vision and ADQ bring, will enable us to further establish our credentials as the region's entertainment champion."

STARZPLAY ARABIA has close to 2 million subscribers across 19 countries, giving E-Vision an opportunity to further strengthen its lead in content aggregation and access the fast growth video DTC streaming business in MENA region. This will enable the launch of new product lines, expand geographic reach and access to advanced technical capabilities. The acquisition provides potential for international expansion, leveraging STARZPLAY ARABIA's reach across 20 global telcos.

With this joint investment, STARZPLAY ARABIA can leverage media content delivered by both E-Vision and ADQ portfolio companies, further optimising its content acquisition spending. Additionally, STARZPLAY ARABIA will also gain significant scale through immediate access to e&'s vast customer base. Under E-Vision, the company stands to benefit from improved economies of scale and can substantially accelerate deployments across key markets in the region. **■**

State of Jalisco in Mexico increased connectivity coverage with Infinet Wireless

Infinet Wireless, the global vendor of fixed wireless broadband connectivity solutions, helped Mexican State of Jalisco to increase public connectivity coverage in 125 municipalities during a technological renovation, enabling more than 12,000 sites as well as its schools, hospitals, libraries, public parks, high schools, administrative offices, CCTV networks and tourist places, among others. The project called Red Jalisco included implementation of the 100% Infinet Wireless technology in more than 5,200 remote sites, achieving a capacity of 20 Mbps.

Internet access and public services are concentrated in the city of Guadalajara, the capital of the State of Jalisco. The Government of the State of Jalisco's priority is to bridge the digital divide, as well as to connect locations, providing more than a million citizens with Internet access, while taking into consideration the security, inclusivity, social and economic development, growth and management of the territory of Jalisco.

The project was born out of the need to bring broadband connectivity to the entire territory of the State of Jalisco. The possibility of using Infinet Wireless technology emerged from a strategy of technological evolution, applied in an existing project, with the deployment which started from 512 Infinet Wireless links in the



3.3 GHz band. It brought good results, as to date more than 400 Point-to-Multipoint radio bases of the InfiMAN Evolution product range, operating in the 6 GHz band, were deployed.

Everything started in 2011, with the State of Jalisco initiating a connectivity project with WIMAX technology, operating in a 3.3 GHz band as determined by the spectrum regulatory body in Mexico, for use in public broadband projects. In 2017 and 2018, a need to increase the capacity arose, and a technological renewal of the project was carried out in phases with 512 sites migrated to Infinet Wireless technology. It reached a capacity of 20 Mbps, thanks to InfiMAN Evolution product range operating in the 3.3 GHz band. In 2020, based on the good results provided by the Infinet Wireless solutions, the State of Jalisco, decided to implement a new project, the Jalisco Network (a.k.a. Red

Jalisco), to bring connectivity to the entire state, including regions outside the capital. For this purpose, a public tender process was launched, where the winning companies decided to continue deploying Infinet Wireless solutions, because of the excellent performance shown by the company in the previous phase. In addition to supporting the design of the wireless network at all times which enabled 5,200 interconnected sites to be reached, which in turn provided connectivity to more than a million inhabitants in both major cities and small municipalities with little or no technological development at all.

"Infinet Wireless technology is very robust and coupled with the advanced networking functions, incorporated into the subscriber equipment, which makes it an ideal solution to fit our needs. The high levels of capacity and performance are unmatched," says Miguel Angel Romo Rubio, director of the project Red Jalisco. "We want to expand the project in the future to continue boosting the country's economy, in addition to having network coverage with 100% Infinet Wireless solutions, since for us it is very important for the State of Jalisco," he concludes.

Avantec, Infinet Wireless's distributor in Mexico, became the facilitator between the winning companies of the public tender and Infinet Wireless, in commercial and in some technical support matters.

CRA participated in the Mobile World Congress in Barcelona

The Communications Regulatory Authority (CRA) participated in the Mobile World Congress (MWC) 2022, which is the world's largest mobile industry gathering and organized by the Global System for Mobile Communications Association (GSMA) in Barcelona, Spain, from February 28 - March 3, 2022, under the theme "Connectivity Unleashed".

he MWC 2022 brought together largest companies in the mobile industry, telecom service providers, regulators, policymakers,

decision-makers, and experts in the field from more than 180 countries around the world.

The four-day event included several sessions related to various topics such as the Fifth Generation (5G) technology, cloud services, the Internet of things (IoT), innovation ecosystems, and other topics. Also, it included an exhibition that has more than 1,800 exhibitors showcasing the latest and most innovative products and technologies in the mobile industry. The MWC also included a ministerial program that brought together ministers, technology experts, and industry executives from around the world to debate related issues. Additionally, on the sidelines of the MWC, the winners of the Global Mobile (GLOMO) Awards were announced in a virtual ceremony, the GLOMO honors the most innovative and brilliant amongst the mobile and digital industry.

Microsoft experts underline the need for Zero Trust approach in the hybrid workplace at GISEC 2022

Microsoft today has reiterated its commitment to securing the hybrid workplace of the future through its participation at GISEC 2022, the Middle East and North Africa's leading cybersecurity event. The company's participation is aligned with the objectives of the UAE Government as it bids to design laws and processes that can strengthen its cybersecurity posture and fend off an increasingly sophisticated array of cyber-attacks.

"Security has never been more critical for our customers given the evolving threat landscape and the move to hybrid work that so many companies are now forced to navigate," said Sayed Hashish, General Manager, Microsoft UAE. "At Microsoft, we have been hard at work to empower our customers to defend themselves against cyber threats, and we have earned their trust: we generated \$15 billion in security revenue in 2021, up nearly 45% from the prior year. This makes Microsoft the biggest security company in terms of revenue and allows us to further strategically invest in our security offering: in 2020, we committed to invest \$20 billion over five years, a four-fold increase from previous rates, to speed up its cyber security work. "

The company continues to safeguard the hybrid workplace by providing organizations of all sizes with a host of solutions, such as Microsoft's Defender for Cloud, which is the only cloud provider with native multi-cloud protection for the industry's top three platforms, and Microsoft Defender for Business, which helps companies with up to 300 employees defend against cybersecurity threats, including malware, phishing, and ransomware in environments with Windows, macOS, iOS, and Android devices.

"Digital transformation cannot happen without security transformation. Our GISEC participation is aligned with the objectives of the country's public and private enterprises as they look to secure their digital estates. The growing sophistication of threats is driving widespread change for cybersecurity professionals, enterprises, and governments. Cybersecurity experts must work together as a community and share expertise, research, and insights, "concluded Hashish.

During the next three days, the company is demonstrating the inherent security strengths of the trusted Microsoft Cloud, as well as how regional stakeholders can use Microsoft's Zero Trust approach to create safer environments for themselves, their employees, and their customers.

Microsoft, as a strategic partner, is exhibiting the use of tools to enable collaborative work in various scenarios, showcasing how innovative devices and platforms can create secure, hybrid workplaces. Microsoft Security Partners Help AG, Cloud 4C, Palo Alto, Fortinet, and Paramount will also showcase their solutions at The Microsoft Hub.

Microsoft's Security Trusted Advisor Paula Januszkiewicz will discuss the 'hacker's perspective' at the GISEC Mainstage, exploring how new risks necessitate a revised set of cybersecurity priorities for 2022. Meanwhile, at the Inspire Stage, Microsoft UAE's Marketing Director Inass Farouk will discuss factors inhibiting female empowerment in cybersecurity as well as the importance of mentorship programs and the need for an action-oriented roadmap. Additionally, Microsoft's Senior Global Cybersecurity Technical Specialist, Hesham Saad, will be on the X-Lab Stage addressing the issue of rethinking OT and IoT security to mitigate cyber threats. Moreover, at the Dark Stage, he will be informing delegates about the state of modern-day ransomware attacks and how to fight extortion.

One of the most important aspects of Microsoft's cloud journey has been to help businesses in the region accelerate their digital transformation capabilities in the most secure way possible. Its datacenters in the UAE are also contributing to job creation, entrepreneurship, and economic growth throughout the Middle East. These cloud regions foster innovation by offering scalable, highly available, and resilient cloud services while maintaining data residency, security, and compliance requirements.



Etisalat UAE, part of e&, joins forces with Samsung to unleash smart solutions



Etisalat UAE, part of e&, announced its unique partnership with Samsung to become the master distributor for the entire range of smart devices and solutions and operate the marketing, supply and distribution of its products.

The Memorandum of Understanding (MoU) is in line with e&'s commitment to delivering outstanding holistic experiences to all customers. It was signed on the sidelines of the Mobile World Congress (MWC) in Barcelona last week in the presence of senior executives from both e& and Samsung.

The partnership will ground Samsung as one of the leading brands in the UAE while positioning e& as the primary digital age retailer for Samsung Gulf. It will extend Samsung's exclusive products and offerings to more than 40 categories to include their entire consumer and business portfolio, such as smart home solutions, enterprise solutions, accessories, and more.

The move will make Etisalat UAE the biggest player for Samsung products in the region, also opening the way for introducing value-added services powered by Samsung technology.

Khaled ElKhouly, Chief Consumer Officer of Etisalat UAE, said: "This strategic partnership is aligned with our vision to become a global technology player, through innovative partnerships and more tailored and unique propositions for the benefit of our customers. The MoU will take our relationship with Samsung to the next level as we enhance the value we bring to customers while working in synergy to deliver smart digital solutions for the people and companies we serve across various verticals."

Seong Hyun Lee, President, Samsung Gulf Electronics said: "Our partnership with Etisalat UAE, part of e& is one drawn by resilience and continuous strife for innovation as we expand our solutions to the entire UAE, catering not only to the mobile phone demand but our entire range of smart devices – effectively responding to our customer expectations and needs. This MoU represents yet another milestone in our ongoing partnership and I am delighted to partake into the new digital era together."

Etisalat UAE, part of e& has been working closely with Samsung Gulf since the beginning, bringing exclusive launches and offerings, including a 36-month instalment plan, the first of its kind in the market. The opportunity set by this renewed partnership for direct supply and distribution development is a milestone and presents a vast growth potential.

Currently, Samsung is the strategic smart devices vendor to Etisalat UAE creating immense value for its customers whilst catering to all their device requirements through its leadership in new technology and flagship sales in UAE.

Etisalat UAE successfully tests Fibre-to-the-Room (FTTR) solution



FTTR Sample Site Orientation (First Floor) : Giga to Every Room



Etisalat UAE part of e& has announced the successful testing of Fibre-to-the-Room (FTTR) solution. The FTTR solution is a revolutionary technology for intelligent home networks providing a solid bedrock for enhanced digital capabilities for millions of consumers in the UAE.

The FTTR solution also effectively eliminates challenges restricting speed limits within the home. In collaboration with Huawei, Etisalat successfully tested the FTTR solution demonstrating a superior customer experience of the solution capabilities in a six-bedroom multi-story villa.

The successful testing of the FTTR solution

has set yet another benchmark in the networking segment, demonstrating nextlevel end-user experience. This revolutionary solution will enable smart city development, enabling home broadband networks to be ready for disruptive innovation and transformation. This is essential, especially during the pandemic when the broadband network has become a digital lifeline for families confined to their homes. With children attending online learning, more people working from home and accessing day-to-day services related to shopping and health online, a reliable and high-speed internet connection has become necessary.

"The completion of the successful trials of the FTTR solution is a testament of

Etisalat's long-term commitment to provide a resilient fibre network so that our subscribers can enjoy ubiquitous high-speed connectivity and low latency networks, thereby continuing to create new experiences and value," said Abdulrahman Al Humaidan, Senior Director, Fixed Access Network, Etisalat UAE.

In FTTR solutions, fibre is used to replace traditional network cables or Wi-Fi networking, to achieve premium experience of full gigabit coverage, seamless Wi-Fi roaming, and intelligent management. Gigabit Wi-Fi can reach every room in the house, ensuring smooth connectivity and no interruptions. With intelligent management systems in place, faults can be remotely located and rectified in one-click mode, improving fault locating and rectification efficiency.

Traditional Wi-Fi solutions over ethernet cables are susceptible to interference affecting performance significantly across the house as signals pass through walls. The solution includes deploying optical fibre to substitute Ethernet copper cables which can be extended to rooms easily by either reutilising the existing concealed utility conduits or deploying an exposed transparent fibre without affecting the aesthetic appeal. It will ultimately benefit consumers with large living spaces and the online gaming community requiring reliable high-speed connectivity.

Telecom Egypt extends its network reach through SEA-ME-WE 6 cable

Telecom Egypt has announced that it is extending its reach through the Southeast Asia-Middle East-Western Europe 6 (SEA-ME-WE 6) subsea cable, as part of the cable's consortium. The new cable will cross Egypt over the company's distinctive infrastructure through trans-Egypt's new geo diversified crossings and landing points from the other cables in the SEA-ME-WE family.

With the rising demand for connectivity coupled with the dynamic digital transformations that are triggering higher levels of data transfers from Asia to Europe, SEA-ME-WE 6 provides an additional layer of diversity and resilience for the high traffic density route between Asia and Europe, strengthening the overall network of each consortium partner. The added flexibility means service providers in the consortium can rapidly scale capacity, protect traffic from faults, and lower total cost of network ownership. The system is expected to be completed by the first quarter of 2025.

The construction has commenced on a 19,200 km-long submarine cable system connecting multiple countries between Singapore and France. The SEA-ME-WE 6 system has more fiber pairs and over double the capacities of existing SEA-ME-WE cables over its overall path. It will offer one of the lowest latencies available between Southeast Asia, the Middle East, and Western Europe, transferring more than 100 terabytes per second, the equivalent of 40,000 high-definition videos each second.

The SEA-ME-WE 6 consortium includes Bangladesh Submarine Cable Company, Bharti Airtel Ltd. (India), Dhiraagu (Maldives), Djibouti Telecom, Mobily (Saudi Arabia), Orange (France), Singtel (Singapore), Sri Lanka Telecom, Telecom Egypt, Telekom Malaysia, Telin (Indonesia), and Trans World Associates (Pakistan).

The Managing Director and CEO of Telecom Egypt, Mr. Adel Hamed, commented: "Our participation in SEA-ME-WE-6 is another key milestone towards our goal to diversify our submarine infrastructure and improve our global reach. We are honored to work alongside renowned global partners to contribute to improving user experience and serve customer demands for premium connectivity services in cable-landing countries. We are also pleased to provide the new cable that serves as the shortest and most reliable link between Asia, Africa, and Europe as it connects the Red and Mediterranean Seas. For years, we have succeeded in revamping our international infrastructure and increasing the geodiversity of our assets to keep pace with the rising global demand for uninterrupted high bandwidth services."

OIC-CERT 5G Security Working Group kicks off cybersecurity workshops

Badar Ali Said Al-Salehi, Director General, Oman National CERT and Chair of the Organisation of Islamic Cooperation – Computer Emergency Response Team (OIC-CERT), has hailed the remarkable progress made by the OIC-CERT 5G Security Framework Working Group during its first 5G security workshop of the year.

The OIC-CERT 5G Security Framework Workshop, hosted by CyberSecurity Malaysia and supported by the Malaysian Communications and Multimedia Commission, was held in conjunction with the Malaysian Edition of Safer Internet Day 2022. It aimed to provide awareness on the importance of 5G security, to develop a common 5G security framework for risk assessment and management and develop a common standard for the OIC member countries that can be used to mitigate any technical difficulties in rolling out 5G. The event marks the beginning of the 2022 rollout of the Framework, with a series of similar workshops to be held in OIC-CERT member countries.

Dato' Ts. Dr. Hj. Amirudin Abdul Wahab, the Chief Executive Officer of CyberSecurity Malaysia, in his remarks, stated, "The OIC-CERT 5G Security Framework provides the necessary mechanism to strategize and plan for embracing 5G technology in Malaysia and to realize the nation's Shared Prosperity Vision 2030."

In his speech, Zulkarnain Mohd Yasin, the Chief Regulatory Officer of the Malaysian Communications and Multimedia Commission (MCMC), said, "The OIC-CERT 5G Security Framework will become another reference point for MCMC and provide guidance to us in ensuring the overall network security, resiliency and survivability of Malaysia's 5G implementation." Mohd. Shamir Hashim, Senior Vice President of the International and Government Engagement Division, CyberSecurity Malaysia, who is also the Co-Chair of the OIC-CERT 5G Security Working Group, explained that the expected outcomes of the workshop were to gauge the acceptance of the OIC-CERT 5G Security Framework and receive valuable feedback regarding the policy. Additionally, the meeting accepted suggestions to improve the framework, a living document that will add content to the framework. It is also expected that a Malaysian task force will be formed to localize the framework.

The workshop participants, representing major local telecommunication companies, were given an overview of the OIC-CERT 5G Security Framework, developed exclusively for the OIC community globally, the basis for heralding in the new Islamic Golden Age.

NuRAN and MTN in partnership for 150 sites in Namibia for rural 4G and 2G



Pursuant to the terms of the MTN MoU, the parties intend to install a minimum of 150 rural & suburban networking sites in Namibia within the next 24 months, subject to the conclusion of a definitive agreement with a ten-year term within six months of signing the MoU. The agreement is intended to provide mobile connectivity solutions through the NuRAN Revenue Share NAAS model.

"We are excited to be partnering with NuRAN in this very important project. At MTN Namibia, we believe that everyone deserves the benefit of a modern connected life therefore our strategy is to bring connectivity to all people throughout Namibia and specifically those less connected like the rural and suburban areas of the country. This is the beginning of a growing relationship with NuRAN and MTN Namibia as we embrace this massive milestone initiative. This is the beginning of an even greater infrastructure deployment in the country providing unprecedented communications services in Namibia. These projects will also create opportunities for local small businesses to partner with MTN as we continue to grow our footprint," Elia Tsouros, Managing Director, MTN Namibia added.

"We are extremely pleased to have concluded this MoU with MTN Namibia. Adding Namibia to the NuRAN portfolio and including 4G connectivity as part of the roll out and the first contract for the Nuran XG product is another major step towards achieving our goal of 10,000 sites. Namibia is one of the wealthier countries in Africa resulting in this deployment having an Average Revenue Per User ("ARPU") of almost double the average rural sites elsewhere on the continent. Bringing connectivity to the unconnected is at the heart of our business strategy and the benefits extend beyond communication including e-commerce, education and healthcare. We are very proud to be working with MTN on another important project," stated Francis Letourneau, CEO at NuRAN Wireless Inc.

The NuRAN NAAS model facilitates network expansion for mobile operators by managing and controlling the build, operation, and maintenance of cellular sites along with associated capital expenditures. The sites are then monetized by providing connectivity on a paid for service basis.





Etisalat recognises outstanding SMBs and start-ups in the UAE

Etisalat has announced the winners of the second 'SMB Awards 2021' in a grand gala event to recognize and celebrate the outstanding achievements of Small and Medium Businesses (SMBs) in the UAE.

The prestigious awards ceremony was attended by Faisal Al Hammadi, Assistant Undersecretary for Entrepreneurship and SMEs from the Ministry of Economy, along with senior management from Etisalat joined by more than 200 partners and business representatives from the SMB community.

In his keynote at the awards ceremony, Al Hammadi applauded the success of the SMB community and lauded the strong collaborative support of the UAE government in creating a conducive and sustainable ecosystem that is wellplaced to produce successful unicorn companies in the country.

The awards recognised ten pioneering entrepreneurs and thriving businesses across ten categories. These mainly included ARJ Holding (Emirati Business), Ascentria Examinations & Tests Preparation Centre (Women in Business), Aster Hospitals UAE (Digital Transformation), Prognica Labs (Artificial Intelligence), Tecton Engineering & Construction (Top Sustainability), Route Mobile (Business Mobility), Universal Medical Transfer Services (Top Healthcare), Corporate Business Services (CSR), Edenred UAE (Technology for Good), and Al Adil Trading (SMB of the Year).

Esam Mahmoud, Senior Vice President, SMB, Etisalat, offered a congratulatory message to all winners, highlighting their potential, resilience and agility to to differentiate their business. He said: "The SMB awards celebrate the wealth of excellence and innovation in our industry. We live and work in different times where progress is determined by how quickly and efficiently we innovate and transform for the benefit of societies, regardless of the competitive business landscape. Driven by our service mantra for SMBs "Your Business Grows with Us,' we are proud to serve the business community in UAE as they co-create and ideate with us to drive a better and brighter digital future."

The SMB Awards, launched in November 2021, received over 500 registrations from businesses across UAE. The external jury members were industry veterans and professionals hailing from varying sectors such as Dubai Chamber, American University of Sharjah, DIFC compliance and risk management advisory firm, ADGM, Burson Cohn & Wolfe, Frost & Sullivan and Nissan Motors.

GLOBAL ICT, TELECOM & SATCOM EVENTS 2022

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