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CEO, Serge Van Herck speaks to Teletimes

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Letter to Readers

Dear Reader

Welcome to the latest edition of Teletimes International.

With the month of March, we look ahead to CABSAT (the industry's premier Satellite show in the Middle East). Teletimes is a media partner and will be actively participating as always. Our team will be available during the show at stand #Z4-20 (Zabeel Hall) in DWTC. I look forward to seeing our readers and partners at the show.

Staying on the subject of Satellite Communications, you will find an exclusive interview in this edition with Newtec CEO, Serge Van Herck who talks about the journey Newtec has made from a researcher to a competitive satellite communications specialist. He also sheds light upon some latest industry trends and HTS satellites.

Moving on, I would like to congratulate the winners from the GSMA Global Mobile Awards including the Etisalat group which has managed to win multiple awards once again. Being part of the judging process was truly a learning experience myself and looking at all the innovation that is taking place in this industry was truly amazing from a journalistic point of view.

The Mobile World Congress has recently concluded and has managed to break all previous records in terms of the highest attendance of visitors at the show. The MWC was not only rich in innovative products and huge numbers of visitors but also in terms of the discussion that took place. During the keynotes, Huawei Rotating CEO, Guo Ping raised three things to do before 5G arrives and Zuckerberg warned mobile industry not to ignore the unconnected. Other discussion included in this edition from the event includes Rafiah Ibrahim's (President, Ericsson MEA) interview with Teletimes and Joy Tan's (President, Global Media - Huawei) discussion with the press. You will also find news and updates from the collaborations and agreements made at the event.

As we enter into a new digital age, the words IoT and Smart Cities can be heard and read almost everywhere. For your interest, we have included in this edition of Teletimes two very interesting interviews on the subject. The first is with Mr. Safder Nazir, Regional VP Smart Cities & IoT, Huawei Technologies who talks about Huawei's vision for Smart Cities and current progress in this space. The second is a joint interview with Mr. Toby Ruckert (CEO, Unified Inbox) and Mr. Jack Wu (CEO, Oviphone) on the occasion of a collaboration between Unified Inbox and Oviphone for IoT wearables.

As per routine, you will find the latest news and updates on all major players from the industry in this edition.

Enjoy Reading!

Khalid Athar
Chief Editor

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Space to deliver your vision

Why satellite broadband will boost the mining industry in Africa

Mining represents Africa's largest economic export. In 2011, the African continent contributed 6.5% of the world's mineral exports. The Southern African Development Community (SADC) produced two-thirds of those mineral exports by value, of which South Africa is the largest contributor.

Africa's rich mineral deposits have, and will continue to be, a strong contributor to the foundations of the modern African economy.

Communications is key in the mining sphere

Scaling mining operations requires precise management and extensive planning. This is achieved through performance feedback and communication between the multiple stages during the extraction process.

As demand increases internationally and rising competitive investment shrinks the market, companies are looking to maximize their current prospects through more efficient operations. Industry investigation within the sector has identified that the simultaneous management, extraction and processing of all the scattered operations off site is key to their efficiency.

Modern mining operations rely on communications solutions for efficient production, connecting each remote site to the outside world and equipment that is part of machine-to-machine (M2M) networks. They also turn to communications for safety and site security, and for the Internet access and video content that support the morale and retention of miners.

In a nutshell, connectivity is the most powerful enabler for the mining industry.

Modern mining operations rely on communications solutions for efficient production, connecting each remote site to the outside world and equipment that is part of machine-to-machine (M2M) networks

Connecting operations via satellite – efficiently and reliably

Satellite remains one of the only methods available to mining companies to connect a remote site anywhere on the earth's surface, and provide communication links with the administration headquarters in any territory.

Due to the scattered nature of Africa's mining operations, satellites offer a short lead-time, removing the need for costly land based infrastructure. Thanks to satellite communications, efficient and cost effective operations can be achieved.

SES Enterprise+ Broadband is a connectivity platform geared for African data challenges. When it comes to the mining sector, SES Enterprise+ Broadband connects scattered mining operations together under a single management hub, without the pain and timeline of building infrastructure.

"Africa's industries need to compete with international competitors now, they need to stay ahead. SES provides that capability, we're able to invest into our clients needs today, for the competitors of tomorrow" – Ibrahima Guimba-Saidou, Vice President of Commercial Africa

There are many factors that contribute to a successful mining business, but our most valuable contribution is connectivity. That connectivity gives decision makers the ability to make effective and timely decisions. T

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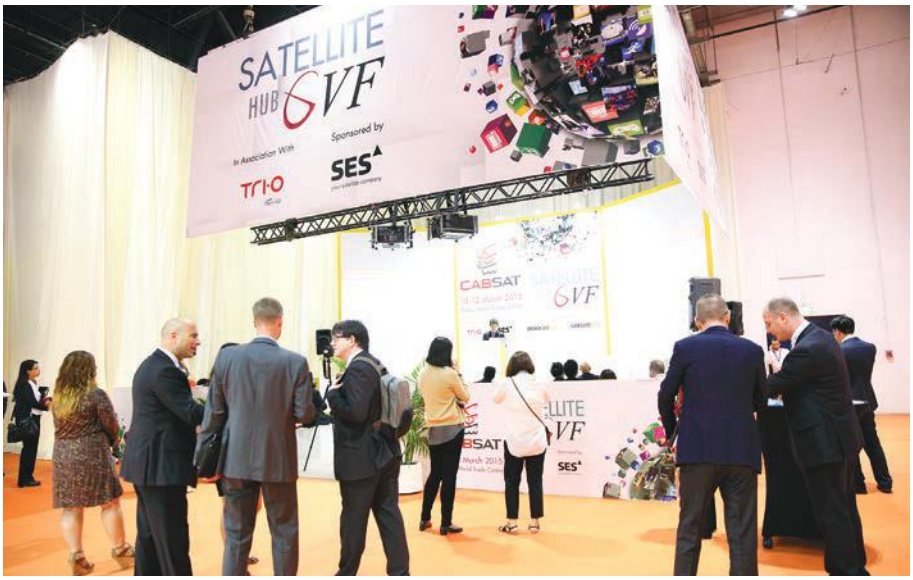
Lords of the Skies: Strategic satellite deployment key to MENA region's digital communications eco-system growth

Region's burgeoning satellite infrastructure to converge on CABSAT 2016

Increased satellite capacity to spur regional Video-On-Demand, HD and UHD TV and IPTV entertainment market

With the exponential growth of and consumer demand for anywhere-anytime content dominating the direction of the region's entertainment landscape, CABSAT 2016 will see the region's leading satellite industry players converge at Dubai World Trade Centre (DWTC) from March 8-10.



As the leading platform for the broadcast, satellite and content sectors across the Middle East, Africa and South Asia (MEASA), CABSAT provides a tailored platform for regional satellite providers such as Yahsat, Eutelsat, Nilesat, Noorsat, Intelsat, Es'hailsat, Arabsat Measat, ABS and Asiasat to explore satellite-reliant content delivery mechanisms with local, regional and international content producers.

Courtesy of new compression technologies that optimise bandwidth and increase efficiency, satellites remain the most prominent mobility-enhancing and nomadic communications technology. The strategic deployment of next generation satellite systems by MENA satellite operators and the global spread of their teleport operations will allow regional broadcasters to maximise the availability of services to consumers via satellite dishes or satellite broadband. These services include heightened Internet connectivity, access to multimedia services to cater for the insatiable demand for increasingly video-based enterprise and social media applications, Video-On-Demand (VOD) and High Definition (HD) television, and IPTV platforms. With the regional television market gearing up for the launch of Ultra High Definition - or 4k - television broadcasts within the next two years, monetisation opportunities or broadcasters are inherently linked to the capacity of satellite providers to beam content into viewers' homes and on to connect devices.

"There are great opportunities for commercial satellite providers that can assemble and deliver an adaptable combination of a secure regional communications network supported by products, services and applications that enable and enhance the flow of information for regional entertainment providers and public and private sector entities," said Trixie LohMirmand, Senior Vice President, Exhibitions & Events Management, DWTC.

"Satellite providers are not simply focusing on broadcasting, they are offering services like broadband, government applications and expansive connectivity – the next generation of satellites will dramatically increase bandwidth and hasten the prospect of universal connectivity across the Middle East and Africa."

With commercial satellite companies facing growing demand for satellite broadband from an ever-growing collection of sources – from niche sectors such as luxury yacht owners to the lucrative military communications market – regional governments are increasing capacity dilemmas as they seek to align connectivity with sustainable growth.

In less densely populated MENA areas that constitute unserved and underserved broadband territories, satellite technology continues to provide the most cost-effective broadband solution for rural and remote communities. Indeed, broadband via satellite – with its higher speeds – is improving access to the 1,200 Arabic and international channels available across the MENA region, as well as civil aspects relating to health care, social services and education. In Saudi Arabia, thousands of schools are already connected through satellite technology and students are provided access to reaching resources and Internet access previously only available in large cities such as Riyadh.

It is in these areas where satellite service providers and telcos collectively offer powerful solutions that cope with consumer and enterprise demand for speed. This speed is only possible by increased capacity and CABSAT 2016 will showcase new technologies and standards including HEVC compression and DVB-S2X that optimise satellite bandwidth and increase efficiency. One of the largest areas of the global satellite industry – the new Low Earth Orbit (LEO) constellations – will also come under the microscope.

In addition, the inherent challenges and continued growth opportunities within the satellite sector will be debated at the two-day GVF Satellite HUB where senior level executives will challenge current thinking across the satellite communication industry. With more than 30 international speakers participating in 12 sessions covering the entire satellite sector, key sessions running on March 9 and 10 include 'Constellations for Connectivity: A New Dawn for Low Earth Orbit Solutions', 'Integrating the Digital World: Satellites, Big data, the Internet of Things and the Clous', Cyber Security: How the Satellite Industry is Addressing the Challenge', MENA's Satellite Broadcast & Telecoms: Overview of an Evolving Market Access Environment', and 'A New Crisis Connectivity Charter: Satellite & Humanitarian Assistance & Disaster Response'.

In addition, all professional attendees to this year's CABSAT will have exclusive access to a 2016 MENA state-of-the-industry report worth US$5,000 presented by the event's official knowledge partner 'Frost & Sullivan'. Key findings will cover industry trends in media, evolving business models, viewership habits and a detailed country index of key MENA markets for growth and investment. T

Eutelsat and ViaSat forming joint venture to expand satellite broadband in Europe

Eutelsat Communications and ViaSat have announced an agreement to create a joint venture combining Eutelsat's current European broadband business with ViaSat's industry-leading broadband technologies and consumer Internet Service Provider (ISP) business expertise.

Building on a decade-long relationship, Eutelsat and ViaSat are joining forces to create a partnership that will expand Eutelsat's current wholesale broadband business and launch a new consumer retail service in Europe. The joint venture will initially leverage KA-SAT, Eutelsat's high capacity broadband satellite.

Commenting on the new partnership, Michel de Rosen, Eutelsat Chairman and CEO, said: "With KA-SAT, our unique dedicated High Throughput Satellite, Eutelsat has built an effective, high-quality, broadband platform for Europe in which ViaSat has played a key role as technical partner. Broadband is an important component of our strategy, and we seek to partner with market-leading companies that contribute to enriching our offer.

ViaSat's Chairman and CEO, Mark Dankberg continued: "Eutelsat is the clear leader in the European broadband market and is an obvious partner in extending our

Michel de Rosen
Chairman and CEO - Eutelsat

Mark Dankberg
Chairman and CEO - ViaSat's

global reach. We have worked together for more than a decade - creating the satellite broadband market and sharing a vision for the future of satellite broadband. We complement each other extremely well. We offer a powerful team to close the digital divide in Europe today and well into the future. The joint venture combines an unprecedented collection of expertise in satellite operations and technology, broadband networks, and wholesale and retail distribution throughout Europe that forms the foundation for next-generation internet services.

Since KA-SAT entered service in 2011, Eutelsat has capitalised on its high capacity satellite platform in Europe and the Mediterranean Basin to reach 190,000 customers. ViaSat has proven success in the consumer residential market.

The joint venture will consist of two businesses coordinating efforts to expand the European broadband market:

- Wholesale Services will be focused on providing wholesale broadband services in the European and Mediterranean regions to the newly established retail services business and existing Eutelsat distributors.

- Eutelsat will contribute its current European broadband business including the KA-SAT satellite.

ViaSat will continue to provide selected broadband technologies for KA-SAT gateways and terminals and will acquire a 49 percent interest in the business for a consideration of € 132.5 million. For future capacity, the partnership will continue to evaluate over the next few months the ViaSat-3 technology and the extent and the terms under which it would utilise the European capacity on the new ultra-high throughput ViaSat-3 platform, which ViaSat expects to bring into service in 2020. The partnership will also continue to study other options to add growth capacity in the nearer and long term.

Retail Services will be focused on building a direct-to-consumer ISP business in Europe. Enhanced service plans will be introduced in select European countries throughout 2016, setting a foundation for growth in the retail services business with the availability of future satellite capacity. The business will be owned 51 percent by ViaSat and 49 percent by Eutelsat.

Researcher to SATCOM Specialist

Newtec Chairman & CEO, Serge Van Herck speaks to Teletimes about the journey and experience

Interview - Khalid Athar

Newtec is today one of the world's top Satcom technology players. In 2015, the satellite communication specialist celebrated its 30th anniversary and the induction of one of its founders, Dirk Breynaert, into the SSPI Satellite Hall of Fame during the Satellite 2015 show in Washington.

Thanks to Newtec technology, more than three billion people across the globe watch television every day, while its satellite broadband systems help connect people all over the world, no matter how remote the location.

Newtec is headquartered in Sint-Niklaas, Belgium, and has an extensive network of more than 100 certified partners, as well as commercial offices in Dubai, Singapore, Beijing, Sao Paulo and Stamford.

Serge Van Herck has served as Chairman of the Board and Chief Executive Officer at Newtec since 2006. Additionally he has joined the WTA (World Teleport Association) and ESOA (EMEA Satellite Operator Association) as a board member.

Khalid Athar: Newtec was originally founded for pure research and development, what factors motivated you to get into production of your research?

Serge Van Herck: That's correct – when Newtec was founded in 1985, we worked exclusively on Research and Development (R&D) for the European Space Agency (ESA). When the European satellite communication market was deregulated in 1994, we seized that opportunity and used our technical knowledge and skills to start developing state-of-the-art Satcom products for the broadcast market.

KA: Usually researchers are not considered to be successful in commercial ventures. How did you manage this huge commercial success?

SVH: Our passion for technology and our passion for serving our customers in the best way we can has led us to where we are today. Year after year, we reinvested our earnings into additional R&D efforts. This led to Newtec being regarded as a trailblazer and allowed us to create and develop a whole range of innovative satellite communication technologies that now contribute to industry standards. DV-S, DVB-S2, iSatTV and, most recently, DVB-S2X

> **"Our passion for technology and our passion for serving our customers in the best way we can has led us to where we are today"**

are just a few examples of this.

When Newtec was founded in 1985, the key aim was to shape the future of satellite communication and this focus has been key to our success.

KA: How significant is professional management for technological companies who usually are founded by core technical reasoning and motivation?

SVH: Both our founders understood very well their personal strengths and weaknesses. While solving customer challenges with superior technology was at the core of their ambition, they very much understood that they needed to hire complementary team members to grow the company. They also understood that it takes a different management and leadership style when a company is growing on a worldwide basis.

To be a successful company, it is not sufficient to be innovative: you need to strengthen all functions within the company. Be it product development, product management, customer service, production and logistics, marketing, sales, finance and administration, or HR, all of those require specific skill sets and a common strategy and vision. Setting up the right processes and searching for continuous improvement are key to our success.

Our product leadership strategy is at the core of our operations, but we also make sure that all other company activities are operating at the highest quality level.

KA: Where do you see Newtec's focus in short, medium and long term perspective?

SVH: Our focus has always been to help our customers to improve their operations by providing them with the most efficient and reliable Satcom transmission products on the market. While our roots are in the broadcast market, with our famous DVB based modulators, we have been continuously extending our product range. Over the last

> **"To be a successful company, it is not sufficient to be innovative: you need to strengthen all functions within the company"**

two years, we are gaining strong momentum and market share with our Newtec Dialog® multiservice platform solution.

More and more VSAT service providers, active in various verticals and markets, are now switching to Newtec Dialog for the efficiency, flexibility and scalability it provides. Newtec Dialog allows operators to build and adapt their infrastructure easily as their business grows and as their customers' requirements change.

It is clear that High Throughput Satellites (HTS) are transforming the way data transmission is done over satellite. While the initial Ka-band HTS are being operated as closed systems by fully vertically integrated

> **"It is clear that High Throughput Satellites (HTS) are transforming the way data transmission is done over satellite"**

service providers in North America, more and more satellite operators around the world are launching their own Ka-band and Ku-band HTS. Those new HTS are a clear opportunity for many VSAT services providers to take advantage of lower space segment costs and higher speeds. Again, with Newtec Dialog we are ready today to help our customers take full advantage of this HTS revolution in various vertical markets, such as consumer broadband, enterprise networks, cellular backhaul, maritime, oil & gas, mobility and government and defense.

In the long term, we will keep focusing on product leadership as we always have, on maximum efficiency and reliability. These are not just abstract aims either – we are seeing them in practice. In 2015, we set another world record by achieving 10bps/Hz, while our #AliveSince85 social media campaign found customers with fully operational Newtec modulators that had been in use since 1996!

We will also remain loyal to our customers and partners by continuing to be their preferred technology partner. While we see more and more technology companies evolving towards a service provisioning model and therefore competing with their previous customers, we are fully committed to maintaining and strengthening our current position in the value chain. Our continuously increasing R&D efforts are a clear sign of our commitment to keep bringing state-of-the-art solutions to our customers.

KA: Communication technologies have come a long way. Considering the last few years, what technological innovations have made a significant contribution in the satellite/Fiber services business?

SVH: Although it isn't strictly a new technology anymore, HTSs have had a huge impact on the satellite industry and continues to do so today with more and more applications beginning to use the technology.

Meanwhile, our own Mx-DMA™ return technology, available on Newtec Dialog, is truly groundbreaking in that it combines the dynamic bandwidth allocation capabilities of (MF-)TDMA and efficiency of SCPC, solving the difficult choice of having to select one or the other, while also providing

the option of having the platform run in either SCPC or TDMA. This offers more than 50% bandwidth savings.

KA: Could you give one or two examples of how these specific technologies created the difference by creating new opportunities, reduced costs or complexities?

SVH: Mx-DMA has already been deployed as part of our Newtec Dialog platform to a number of our customers, reducing OPEX and enabling them to launch new services in all cases. The technology adjusts the frequency plan, the symbol rate, the modulation, coding and power in real-time for every terminal in the satellite network, dramatically increasing efficiency and network availability. All of this is achieved, of course, without any interruption to the data flow.

KA: What new product or technology do you see arriving in the next couple years?

SVH: When we look at the HTS evolution, we also see a trend towards multiservice networks across our industry. Although the majority of VSAT terminals are deployed for consumer broadband, much of the revenue actually comes from high-end applications, like mobility, oil & gas and cellular backhaul. By combining all these applications on a single platform, network operators can maximize economies of scale while diversifying their business.

With a diverse and expanding modem portfolio and three return technologies, our Newtec Dialog multiservice platform was specifically designed to address a wide range of applications. Only two years since it was released, Newtec Dialog has already been chosen by many customers as a way of streamlining, expanding and future-proofing their businesses.

Further advances in image compression, computing power, component miniaturization and advances in antenna technology are also bound to keep fueling new product introductions over the next years.

KA: In your business "know you customer" is even more important and often a competitive edge. How do you go about this, and continue to strengthen this important business aspect?

SVH: There isn't really a magic formula to knowing your customer. What we try to do is understand from our customer what they want to achieve through the application of our products, how they generate revenues and how we can help them improve the profitability. The more we understand about how they apply Newtec technologies, the better we can help them move into a direction that drives profitability and lowers costs.

KA: How does the term "total solution" refers to your business and the markets you serve?

SVH: For us, "total solution" means we provide and tailor a solution for our customer. What this means in practice is that they will then have exactly what they need in order to satisfy the requirements of their customers, the end-users. Our success is based on their success and the key for providing the right solution is to be open and agile in helping your customer.

KA: Could you please cite an example of total solution you provide and its value proposition?

SVH: Of course – Newtec Dialog provides the core of many of our tailored solutions. As a multiservice VSAT system, Newtec Dialog provides us the flexibility and scalability to ensure that each of our customers gets the best solution, regardless of how and where they apply the technology.

What this means in real terms is that customers can make use of many high-end applications – mobility, oil & gas and cellular backhaul for example – and by combining all these applications on a single platform, network operators can maximize economies of scale while diversifying their business.

KA: How do you overcome the challenges a company faces in providing a total solution as compare to providing a specific service or product?

SVH: The challenges are to listen carefully to the customer, to fully understand their needs. For example, with mobile backhauling, previously the priority was voice and today there is more data which means you have less symmetric traffic and more asymmetric traffic, as well as more bursty traffic. You need to really understand all of this to determine where the customer wants to go, where they want to move. In some countries, they leap frog 3G and go directly to 4G. All this needs to be carefully evaluated and then we can bring in a solution which maximizes the use of satellite.

> **"Our own Mx-DMA™ return technology available on Newtec Dialog, is truly groundbreaking in that it combines the dynamic bandwidth allocation capabilities of (MF-)TDMA and efficiency of SCPC"**

The key is to listen to your customer, be open, be agile and help your customer.

KA: How do you find Teletimes International?

SVH: I always enjoy reading articles about the industry and its players. Getting insights from experts in our satellite and telecom industry is always highly appreciated.

Newtec launches MDM5000 – Industry's first DVB-S2X VSAT Modem

Newtec MDM5000 Satellite Modem, targeting the high-end mobility, trunking and HTS markets, will debut at SATELLITE and CABSAT shows

Newtec has announced the launch of its most advanced VSAT modem to date – the first on the market to support wideband DVB-S2X.

The Newtec MDM5000 Satellite Modem – due to make its debut at SATELLITE 2016 and CABSAT 2016 – is capable of receiving forward carriers of up to 140 MHz, and processing over 200 Mbps of throughput. On the return channel, it supports SCPC, TDMA and Newtec's unique Mx-DMA™, up to 75 Mbps.

With forward symbol rates from 1 to 133 Mbaud and coding up to 256APSK, the MDM5000 will boost efficiency and performance on legacy satellites while fully unleashing the potential of next-generation High Throughput Satellites (HTS).

As the latest addition to the Newtec Dialog® multiservice platform, the MDM5000 is designed to handle a wide range of IP services, including: Internet and Intranet access, Voice over IP (VoIP), mobile backhauling and trunking, along with video contribution and multicasting.

"The MDM5000 Satellite Modem represents another milestone in Newtec's long history of innovation. By introducing the industry's first DVB-S2X VSAT modem, we plan to enable our customers to better serve the high-end mobility and trunking markets, while maximizing the benefits of HTS," said Newtec CEO,Serge Van Herck.

"The addition of the MDM5000 to our comprehensive modem portfolio, and our three return technologies, ensures that Newtec customers will always have the optimal solution at their disposal, for every application and price point."

Kevin McCarthy, VP - Newtec

Serge Van Herck, CEO - Newtec

Having the choice between Mx-DMA, SCPC and MF-TDMA within a single modem, gives network operators the flexibility to address multiple markets, adapt to evolving business models and quickly respond to new opportunities and customer requirements.

Newtec's unique Mx-DMA return technology delivers the efficiency of SCPC with the dynamic bandwidth allocation capabilities of MF-TDMA, offering more than 50% efficiency gains.

Mx-DMA is ideal for mid to high-end applications, with variable return rates up to 75 Mbps, including: cruise ships, oil rigs, super yachts and cellular backhauling. For applications that require fixed data rates, like file/video contribution, SCPC provides highly efficient, dedicated return channels, up to 170 Mbps. At the other end of the spectrum, MF-TDMA is optimized for low-rate, overbooked and bursty traffic profiles, like back-up circuits and occasional use services.

As with previous Newtec Dialog modems, the MDM5000 incorporates Layer-3 routing, advanced Quality of Service (QoS), TCP acceleration, pre-fetching, compression and encryption. However, the MDM5000 also supports a new Layer-2 mode, facilitating integration with various networking topologies and routing protocols, like MPLS and BGP. It also comes equipped with dual demodulators, for future seamless beam switching on HTS networks.

"For service providers, targeting high-end verticals like cruise ships, oil rigs, and cellular backhaul, the MDM5000 is a game changer," added Kevin McCarthy, VP of Market Development at Newtec. "Up to now, the only alternative was to combine multiple low-end MF-TDMA modems, or resort to expensive SCPC circuits to address the extreme throughput demands of these high-value markets. The MDM5000, paired with our Mx-DMA technology, will bring welcome relief to these customers and strategically position them for the transition to HTS." T

Speedcast partners with Gazprom to expand communications services for energy sector in Africa

SpeedCast announced a new agreement with Gazprom Space Systems ("GSS"), a Russian-based satellite operator, to expand satellite communications services in Africa. This partnership allows SpeedCast to utilize capacity on GSS's Yamal-402 Ku-band satellite to provide high-performance services to global oil and gas companies across Africa.

Customers will benefit from the high-performance and excellent look angles for Africa offered by the Yamal-402 satellite. With the uplink based in Germany, customers will be able to land their traffic directly into Europe, taking advantage of high-speed interconnection throughout Europe. Further, Germany's excellent standards of infrastructure and advanced data security laws will ensure the highest levels of security for customers' sensitive data.

Dmirty Sevastiyanov, Director General, Gazprom Space Systems

"We are always searching for the best solutions for our customers in the key countries in which they operate", commented Moti Shulman, Vice President, Technologies & Network Planning, SpeedCast International Limited. "The expansion of our services for the African resource market augment SpeedCast's current service capacity in Africa. We are thrilled to partner with Gazprom Space Systems to deliver communication services into the African region. Delivering innovative solutions to meet the needs of our customers is at the heart of our success."

"We are pleased to partner with a market leader in global satellite communications, with growing market share in the energy sector," said Dmirty Sevastiyanov, Director General, Gazprom Space Systems. "Our partnership with SpeedCast will further strengthen our common ability to deliver the reliable and efficient broadband and mobile connectivity that energy companies demand nowadays." T

MEASAT appoints Dr. Edmund Kong as CTO

MEASAT Global Berhad ("MEASAT") announced the appointment of Dr. Edmund Kong as the company's Chief Technology Officer.

Dr. Kong will focus on developing MEASAT's long term technology strategy. He will be responsible for understanding technology trends in the satellite and communication sectors, and in developing opportunities for MEASAT. He will also be working with Dr. Ali on new satellite procurements.

"We are delighted to welcome Dr. Kong to our senior leadership team," said Paul Brown- Kenyon, MEASAT's Chief Executive Officer. "His technical knowledge, industry expertise, and years of aerospace experience will be invaluable in ensuring MEASAT continues to innovate and remain at the forefront of the communications industry across the region."

"This is an exciting time for the communications and broadcasting industries, with technology change creating many new challenges and opportunities," said Dr. Kong. "To be able to meet our customers' needs moving forward, and continue to develop the business, it is important that we understand how technologies are likely to evolve and how we can benefit from them."

Dr. Kong holds a PhD in Aeronautics and Astronautics from Massachusetts Institute of Technology (MIT) while spending four years at MIT Space Systems Laboratory as Research Scientist; and most recently, working at a leading aerospace manufacturer as Product Line Chief Engineer. He has 20 years of experience in the satellite industry. T

Inmarsat joins the LoRa® Alliance

Inmarsat has announced that it has joined the LoRa Alliance, dedicated to developing a global standard for IoT. Inmarsat will provide the LoRa ecosystem with satellite connectivity to enable the deployment of solutions anywhere an object or device needs to be connected.

The LoRa Alliance, a non-profit organisation founded in 2015 by industry leaders across the IoT and machine-to-machine (M2M) industries, has a mission to standardise Low Power Wide Area Networks (LPWAN) which are being deployed worldwide to enable IoT, machine-to- machine (M2M), smart city and industrial applications. Pooling their knowledge and experience, the members of the Alliance aim to guarantee interoperability between operators to make LoRaWAN™ the open global standard for IoT applications worldwide.

"Joining the LoRa Alliance is a natural fit for Inmarsat," Greg Ewert, President, Enterprise, Inmarsat said. "Our portfolio of M2M services, powered by our global network, have long been used to extend the reach of our customers' M2M networks in a number of vertical markets, powering the Internet of Everywhere for solutions worldwide. We hope that our expertise will be a valuable addition to the LoRa Alliance, and we are pleased to champion a global standard for IoT connectivity."

Greg Ewert
President Enterprise - Inmarsat

Olivier Hersent
CEO & CTO - Actility

With reliable, global mobile satellite connectivity, Inmarsat fulfils the unique connectivity requirements for valuable M2M and IoT networks wherever they are on the globe and beyond the reach of terrestrial networks – at land, at sea and in the air.

"We are very pleased to welcome Inmarsat as a member of the LoRa Alliance," Olivier Hersent, CEO & CTO, Actility, said. "Inmarsat is the first global satellite operator to join us. Their expertise and know-how in delivering mission critical mobile communication services to businesses and institutions worldwide will be a great asset to further develop the LoRaWAN ecosystem.
The Alliance is looking forward to working with Inmarsat to accelerate LoRa enabled IoT services worldwide." T

INTEGRASYS launch a state-of-the-art tool 'Alusat'

VSAT is used for a huge variety of diverse applications all across the world from cellular backhaul to disaster recovery, and the advent of High Throughput Satellites (HTS) is also fuelling the numbers of deployed sites.

VSATs operate with no requirement for terrestrial infrastructure and are therefore often located in remote, difficult to reach areas.This can cause problems for network operators in terms of maintenance, as Juan Martines, Technical Director at INTEGRASYS explains: "Once a VSAT is installed, it is often unmanned and left to operate unsupervised for years. Any misalignment during installation or adverse weather can then cause problems, not only for that single VSAT, but for the entire network with negative and costly effects on the operators and the network users."

To tackle this problem, INTEGRASYS has launched Alusat (Always Up Satellite Terminal). This automated tool, which combines traditional equipment management with spectrum monitoring and measurement in a unique way, accurately derives the remote terminal RF status and pinpoints which terminals are not functioning properly. In certain conditions, it can even recover out-of-service or service-degraded terminals. Martinez continues: "Alusat is an evolution of INTEGRASYS' industry-leading Satmotion Pocket tool, which allows accurate installation during

Cont on P-19

Airbus Defence and Space develops new partnerships for Military satcom services in Asia Pacific Region

Airbus Defence and Space is working with local service providers to develop new partnerships to deliver highly resilient Skynet military satellite communication services to the Asia Pacific region, following the successful completion of Skynet 5A satellite move from 6° East to 95° East to provide global X-band and UHF coverage in this region.

Airbus Defence and Space has signed an agreement with CopaSAT, to become a new channel partner for Skynet services, primarily using the relocated Skynet 5A satellite. CopaSAT will be offering Skynet services as part of a proven and assured portfolio to their US customers delivering innovative network services that combine the affordability, operational utility and scalability required to meet the complex scenarios experienced in global security and humanitarian operations.

Last year, Airbus Defence and Space worked with CopaSAT, and its terminal partner Tampa Microwave, to conduct a series of successful network tests using the Skynet 5A X-band satellite. CopaSAT teams, using CopaSAT's teleport infrastructure and Tampa Microwave's remote manpack and fly-away terminals, as well as various other small terminals, conducted end-to-end testing to confirm operation of an entire network and the performance of Skynet 5A at the new orbital slot.

Obie Johnson, President of CopaSAT said: "We have worked with Airbus Defence and Space for five years primarily as a terminal partner, but we are now positioned to provide CopaNET to our US troops throughout the PACRIM, Asia, and west to Arabia."

Steve Mills, Head of Global Sales and Marketing for Skynet 5 at Airbus Defence and Space, said: "This exciting new partnership with CopaSAT will enable Skynet services to be delivered across new regions and to new customers. This capability provides allied governments with a significant new option for missions requiring assured communications, which can operate using light-weight, expeditionary terminals and is not susceptible to rain or snow fade."

Airbus Defence and Space completed the move of the Skynet 5A to 95° East over the Asia Pacific region in September 2015. The relocation was initiated to extend the Skynet constellation's coverage and services from 178 West to 163 East, including the Indian Ocean and Western Pacific region. The Skynet network now offers global military coverage, expanding core

service reach for the UK military and augmenting coalition capabilities in the region.

Airbus Defence and Space owns and operates the hardened Skynet X-band satellite constellation of eight satellites and the ground network to provide all Beyond Line of Sight (BLOS) communications to the UK Ministry of Defence. The contract also allows other NATO and allied governments such as members of the five-eyes community (besides UK, the USA, Australia, New Zealand and Canada) to use the Skynet system to augment their existing services. Airbus Defence and Space also leases the X-band hosted payload on Telesat's Anik G1 satellite which covers the Americas and parts of the Pacific including Hawaii and Easter Island. T

INTEGRASYS launch a state-of-the-art tool 'Alusat'

Cont from P-18

remote commissioning. Alusat allows a virtual visit to every site on the network, reducing or even eliminating the need for a physical presence at certain sites. Alusat also allows the consistent monitoring of a VSAT site after installation to ensure optimisation of operation and the minimisation of costs caused by service failures."

Alusat offers VSAT network operators significant benefits in terms of reduction of OPEX and the simplification of the entire maintenance process. Alusat significantly reduces the need to deploy personnel to individual sites and minimises maintenance time and effort, freeing up personnel and making the whole network much more efficient, with rapid Return on Investment. Features such as One Touch Calibration and a simple interface also make Alusat extremely simple to use. T

SES and Panasonic Avionics sign agreement to provide inflight Wi-Fi and TV over the Americas

SES and Panasonic Avionics announced two major, multi-year, High Throughput Satellite (HTS) capacity agreements serving aeronautical, maritime, and oil and gas markets across the Americas.

Panasonic Avionics is a leading provider of inflight entertainment and connectivity systems. These contracts, for SES-14 and SES-15, represent their highest bandwidth commitment to date of high-powered HTS spot beam and wide beam Ku-band capacity. SES's HTS coverage will enable airlines to offer next-generation inflight Wi-Fi and live television services to passengers travelling on air routes throughout the Continental U.S., Alaska, Hawaii, Canada, Mexico, and the Caribbean. Panasonic Avionics will also utilize the HTS capacity to serve growing maritime markets and oil and gas operations throughout the region.

"These major agreements are another step-change in the highly dynamic and buoyant aeronautical connectivity market," said Ferdinand Kayser, Chief Commercial Officer

Ferdinand Kayser, CCO - SES

David Bruner, VP - Panasonic Avionics

of SES. "Our new high throughput satellites, SES-14 and SES-15, are poised to dramatically change the airline passenger experience and introduce a new era of inflight connectivity. SES-14 and SES-15 are designed for mobility; they are able to dynamically tailor power allocation and bandwidth to maximize capacity. This enables delivery to aircraft across different geographies and time zones. The design allows for easy transition from one region to another, from one gateway to another, and from one satellite to the other."

David Bruner, Vice President of Global Communications Services at Panasonic Avionics said, "With our communications service expanding rapidly across several vertical markets, we are always looking for innovative high throughput satellite designs that help us deliver the best connectivity service to our customers. Given their vision and conviction, Panasonic is very excited to collaborate with SES, and we look forward to offering these ultra-high throughput services to our air transport, business aviation, oil and gas, energy and maritime markets" T

RR Media to merge its operations with SES Platform Services

SES Platform Services GmbH (SES PS), a wholly-owned subsidiary of SES, announced an agreement whereby RR Media, a leading provider of global digital media services to the broadcast and media industries, will merge its operations with those of SES PS, to create a world-leading global media solutions provider.

SES will pay a consideration of USD 13.291 per share to acquire a 100% interest in RR Media. The consideration corresponds to an Enterprise Value of USD 242 million, which will be funded from the group's existing financial resources. The acquisition is subject to regulatory approvals, which are expected to be completed in Q2/ Q3 2016.

RR Media provides scalable, converged digital media services to more than 1,000 media companies globally. Every day, the company manages and delivers over 24,000 hours of broadcast content, over 4,000 hours of online video and VOD content and over 350 hours of premium sports and live events including major global sporting events such as the Super Bowl and the FIFA World Cup. RR Media provides coverage for over 95% of the world's population, reaching viewers of multi-platform TV operators and populating content to over 100 Video-on-Demand (VoD) platforms, as well as delivering content to online video and Direct-to-Home (DTH) services. T

Yahsat to operate as a Brazilian Operator

Yahsat, has been awarded a license to operate its upcoming Ka-band satellite, Al Yah 3, by the National Telecommunications Agency, ANATEL, in Brazil. The award of the license follows Yahsat's success in an auction held by ANATEL in May 2015, offering satellite operators the option to bid for rights to operate a satellite, as a Brazilian operator, over Brazil. Upon winning the auction, Yahsat elected to use the license for Al Yah 3, positioned at the 20oW orbital slot.

Yahsat's award of the operating license marks a significant milestone in materialising the company's international expansion strategy. Al Yah 3 will cover over 95 per cent of Brazil's population across more than 5,000 municipalities offering high-speed, affordable broadband satellite internet services as well as economic, high data rate backhaul links for ISPs and telecommunications operators.

Commenting on Yahsat's growing geographic reach, Masood M. Sharif Mahmood, Yahsat Chief Executive Officer said: "This is a moment of great pride for us, as Yahsat will be operating as a major provider for communications in Brazil. Our market entry has taken many years of planning from our headquarters in Abu Dhabi and we would like to thank the UAE government for their unwavering support of Yahsat's international expansion."

Brazil is a key market for Yahsat's services, having one of the highest levels of internet consumption per user in the world, and a rapidly increasing demand for broadband and internet services. However, Brazil faces the distinct challenge of being a vast country with a large and growing population across underserved and unserved areas. Yahsat's experience across different geographies enables it to provide reliable connection without depending on terrestrial infrastructure. T

Yahsat signs partnership with Nexlinx in Pakistan

Yahsat has signed an agreement with new service partner Nexlinx Networks to distribute its satellite broadband service, YahClick, to users across Pakistan.

Nexlinx customers will soon be able to instantly connect to YahClick's satellite broadband internet service anywhere in the country using a compact satellite dish and modem, without the frustration of congested networks, including areas where terrestrial infrastructure is currently not available.

Commenting on the new partnership, David Murphy, Chief Commercial Officer, Yahsat said: "YahClick already enjoys great success in Pakistan and with the ever growing demand for widespread access to reliable broadband internet, we wanted partner with a leading telco to further the reach of our service offering."

As one of Pakistan's leading telecom and technology providers, Nexlinx specializes in high quality telecommunication services and solutions to a business client base.

YahClick's satellite broadband service will be delivered by Nexlinx, who will offer in-country technical, operational and customer care. Nexlinx delivers a 100% managed network with an expansive portfolio of business-specific products and services.

Naeem Haq, CEO , Nexlinx Networks, commented: "We are delighted to be partnering with Yahsat and believe YahClick's satellite connectivity will play an important role in expanding our broadband portfolio by allowing us to provide high class broadband services in areas which are underserved and overlooked. Our partnership is directly in line with our mandate to develop market-leading high quality broadband services for businesses all across the country. T

GULFSAT deploys DEV Systemtechnik's ARCHIMEDES Matrix Solution to upgrade Cyprus POP

GULFSAT Communications, a leader in the communication service industry in the Middle East and North Africa (MENA) region, has deployed DEV Systemtechnik's next-generation L-Band RF Matrix switching solution, ARCHIMEDES, in order to upgrade GULFSAT's Teleport in Cyprus. The capabilities and flexibility of DEVs' ARCHIMEDES switching solution define the next generation of L-band Matrix Switching Systems enabling satellite, broadcast, CATV, and other communications facilities to expand their infrastructure capacity while reducing capital expenditures – "Expansion by Reduction."

After demonstrations and tests in Kuwait, GULFSAT decided to deploy the DEV ARCHIMEDESMatrix Switch because DEV's solution requires less rack space and has significantly lower power consumption than predecessor products.

Nikesh Paul Mathew, Senior Satellite Engineer says, "When DEV Sales Managers demonstrated their RF Matrix Switch ARCHIMEDES at our premises in Kuwait, we were impressed with its features. We decided to install the DEV ARCHIMEDES in our teleport in Cyprus as we can manage and control the services remotely."

In addition, ARCHIMEDES' integrated functionalities such as LNB Powering, Redundant Controller and the easy-to-use Multi-Touch Display uniquely addressed GULFSATs requirements. The ARCHIMEDES Matrix can also be upgraded easily in order to meet GULFSAT's future needs for capacity growth due to its extremely flexible, modular design. T

VIDELIO - Media presents their innovative solutions for TV at CABSAT 2016

VIDELIO - Media, announces their 10th participation in a row to CABSAT 2016. VIDELIO - Media will once again present their latest innovative Broadcast of Tomorrow solutions, during the show held at the Dubai World Trade Center on March 8-10, 2016.

From Content Creation to Content Distribution, through Content Management, VIDELIO - Media teams design and implement end-to-end solutions to help TV channels and Media Groups overcome actual Industry challenges and leverage future business opportunities.

VIDELIO - Media 'beyond the line of sight solutions and innovations' addresses challenges such as transition to full IP environments, Live Remote Production for connected stadiums, Cloud-based operations, Content everywhere distribution platforms, Content Monetisation techniques, Cyber Security for TV. These disruptive concepts

complement the recognized VIDELIO – Media 'cornerstone solutions' such as Production OBs, TV Studios, Post-Production, Newsrooms, Playout and Transmissions facilities deployed in more than 60 countries in the World.

In addition, this year VIDELIO - Media will welcome technology partners to present and demonstrate their solutions in Content Creation and Management and Cyber Security for Media Groups on their booth. T

NASA delegation visits Thuraya Satellite operations in Sharjah

Thuraya Telecommunications hosted a delegation from NASA at its primary gateway office in Sharjah.

Organised in conjunction with the UAE Space Agency, the visit was an opportunity to showcase Thuraya's communication and satellite network systems, helping to demonstrate the country's satellite capabilities.

The NASA party, led by Badri Younes, Deputy Associate Administrator, Human Exploration and Operations Mission Directorate, was given a guided tour by Thuraya Chief Technology Officer, Ahmed Al Shamsi. The guests were shown the operations control center, and the antennas serving Thuraya's satellites, and were given a detailed presentation to Thuraya's network and portfolio of products and services.

Having seen Thuraya's facilities first hand, the visitors also discussed potential collaboration, exploring future opportunities to work together.

Speaking at the end of the visit, Younes said: "Today's visit was a great opportunity to see just how much Thuraya has grown in recent years, and to establish key points of contact. We enjoyed our discussions together. Thuraya has historically provided many agencies with tremendous service support, and we at NASA would like to work together closely too in support of our planned cooperation with the UAE Space Agency".

The guest party also included Judith E. Baker, Vice Consul and Economic Affairs Officer at the Consulate General of the United States of America. They were welcomed by Amal Ezzeddine, Thuraya Senior Director, Government Services, and Mubarak Al Ahbabi, UAE Space Agency Senior Specialist, System and Program.

Ezzeddine said: "It is a pleasure to support the UAE Space Agency. We have shown the strength of our current capabilities here in the UAE, and around the world, and it is exciting to discuss ideas with our guests from NASA. This was an excellent opportunity to understand how Thuraya can work together in the future with NASA. We look forward to more meetings to come, and the innovation that will come from the collaborative relationship we are developing with one another." T

NovelSat releases NovelSat NS4 Software, boosting satellite communication to highest ever throughput

Demos to be seen at Satellite 2016 Show in Washington

NovelSat, has released NovelSat NS4, its 4th generation satellite transmission waveform, for general availability. In head-to-head demonstrations, NovelSat has shown that NovelSat NS4 delivers up to 22% higher spectral efficiency compared with DVB-S2X, the industry's current satellite transmission standard.

NovelSat NS4 is now available as an optional software package in all NovelSat satellite modems, modulators and demodulators, which also support and are backward compatible with all industry standards, including DVB-S, DVB-S2 and DVB-S2X*. For the satellite communications industry, that extra boost of spectral efficiency with NovelSat NS4 means more HD and 4K UHDTV channels and more data without increasing their costly satellite bandwidth budgets.

For those with steady satellite bandwidth needs, as much as 22% better efficiency means they can transmit the same content using far less bandwidth. In networks using the DVB-S2 standard, switching to NovelSat NS4 can boost capacity by up to 45% without increasing bandwidth.

Itzik Wulkan, CEO - NovelSat

The new NovelSat NS4 waveform, like all NovelSat features, is a software upgradable option that can be installed over the air (OTA) on all NovelSat satellite devices.

This software-only model has proven very popular with NovelSat customers who want to optimize bandwidth utilization without the hassle or cost of replacing equipment.

"Since we released NovelSat NS3 in 2011, NovelSat has consistently offered our customers the most bandwidth efficient satellite technologies available," said Itzik Wulkan, NovelSat CEO. "NovelSat NS4 is a technological breakthrough which is the culmination of years of experience and hard work that started the day after NovelSat NS3 was released."

Along with NovelSat NS4, NovelSat released the NovelSat NS4 Calculator. This is a tool that can be used, upon request, to show details about how NovelSat NS4 optimizes bandwidth usage with varying operating parameters. NovelSat also recently announced a new streamlined customer support program which, among its other advantages, offers Gold-level customers eligibility for free upgrade paths to NovelSat NS4.

NovelSat first demonstrated the competitive advantages of NovelSat NS4 at the Satellite 2015 Exhibition. Next week, NovelSat is inviting broadcasters, satellite communications providers, users and integrators to see NovelSat NS4 demos at the Satellite 2016 show, March 8-10 at National Harbor, MD. T

NovelSat announces streamlined 3-tiered support program

NovelSat has announced the availability of a new, streamlined customer support program.

The program offers NovelSat customers a 3-tiered set of support packages -Standard, Silver and Gold-which include options such as 24/7 support, immediate response, free software updates, upgraded RMA plans and annual system-wide auditing.

In addition, Gold customers are now eligible for free upgrade paths to NovelSat NS4, the new satellite waveform that NovelSat will be releasing shortly.

NovelSat NS4 comes with a list of advanced transmission features that boost bandwidth efficiency by as much as 25% compared with DVB-S2.

The new NovelSat support program was designed to help speed up acquisition decisions and response times on support calls for global customers. Customers subscribed at all levels will continue to receive the same high level of support.

Now, same day support is also available 24/7 for Gold customers on 6 continents to ensure optimal uptime for their critical satellite communication systems. T

GVF and Integrasys launch VSAT installation support system to enhance field technician efficiency and reduce interference

Support System extends GVF Global-Standard VSAT Installation Certification Training with Skills and Knowledge for use of Integrasys Satmotion Pocket

GVF has released a new online, interactive training course, GVF 514, "VSAT Installation with Satmotion Pocket," developed by SatProf in collaboration with Integrasys.

In the new online training course, technicians learn how to correctly install, configure, and use the Integrasys Satmotion Pocket system to align a VSAT antenna. Simulators enable the student to operate a virtual Satmotion system, observing real-time spectrum analyser, as they adjust the controls on a 3-D antenna model. GVF 514 builds on the knowledge and skills the technician has learned in course GVF 510, Core Skills for VSAT Installers.

The Satmotion Pocket system, a combination of smartphone/PC app and special hub equipment, enables VSAT field technicians to perform cross-pol alignment, compression tests, site planning, and other critical tasks at any time, without requiring intervention from the Satellite Access Center or even a working phone connection.

"Integrasys has consistently shown commitment to interference reductions and practical support for worldwide community of VSAT installers," said David Hartshorn, Secretary General of GVF. "We are pleased to incorporate Satmotion specialist training into the Satcom Professional certification training program."

"Satmotion Pocket is an excellent tool for accelerating VSAT installation productivity while enforcing interference prevention," said Ralph Brooker, President, SatProf. "A well-trained field technician can interpret the real-time spectrum of the uplink test carrier at the monitoring station, as well as data from the local modem, to rapidly align antennas for minimum cross-pol and adjacent satellite interference. This also reduces the burden on the satellite operators' access centers for processing telephone calls for routine carrier line-ups."

Alvaro Sanchez

David Hartshorn

"GVF is the number one provider of installer training, allowing students to be trained on Satmotion anytime, anywhere. We believe that training is a must for minimizing interference and deploying systems more effectively," said Alvaro Sanchez, Sales and Marketing Director of Integrasys.

"It is a great pleasure to work with GVF and Satprof, whose training enables installers throughout the world to point easier and and more quickly using Satmotion Pocket."

GVF 514 is now available through in the GVF training catalog at the GVF Training Website. GVF's "Andrew Werth Scholarship" discount for Developing Country and UN/NGO students applies. In addition, GVF 514 is included at no additional charge for GVF Knowledge Center subscribers. New and existing students can enroll in the subscription program through the GVF Training Website.

During SATELLITE 2016, David Hartshorn of GVF and Alvaro Sanchez of Integrasys will discuss the new training course during the "Can Big Data Tackle Satellite Interference Challenges?" conference panel on Wednesday, 9 March at 2:15 pm - 3:15 pm in Room Annapolis 1-2. Members of the GVF training and Integrasys teams and will also be available to meet with partners and customers attending the SATELLITE 2016 conference in the exhibition 8-10 March in Washington, D.C. T

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"Telcos need to review Business Models"

CEO STC Group addresses Ministerial Programe Session at MWC

Teletimes Report

The CEO of STC Group Dr. Khaled Biyari stressed the urgency to review the business models of telecommunications companies given that data usage by individuals has lately increased several-fold while voice services are contributing less to revenues of telecommunication companies.

Dr. Biyari made the call during his "Digital Strategies for New Mobile Phone Services" presentation, as part of the "Ministerial Programme" sessions held alongside the MWC between 22-25 February in Barcelona.

Recalling the phases of the industrial revolution, Biyari fast-forwarded to what has become known today as the "Digital Revolution," a term recently adopted at the World Economic Forum in Davos, which dubbed it the "Fourth Industrial Revolution" in the history of humanity.

During his presentation, the CEO of STC referred to the change in the reality of dealing with the internet, especially with the development of the so-called "Internet of Things" that has led to the acceleration of devices connecting to the Internet. This has tremendously impacted the way business is conducted yielding radically different business models.

He explained that the telecommunications industry has gone through two stages of transformation during past decades, with the first focusing on delivering voice services, while the second, which we are still experiencing, concentrates on delivering broadband services. With the increased penetration of "Digitization" in every aspect of daily life, it is imperative for all operators, worldwide, to review their business models to keep up with this increased demand and to sustain their business models.

Biyari highlighted four main factors he believes will drive future success; he summed them up as:

- Pricing policy and quality of service delivered to clients.

- Quality of products and services, as well as related partnerships and bundled content.

- Technology and all that entails in terms of scalable network structures.

- Regulatory bodies and their role in enacting regulations that encourage investment in the sector.

The CEO of STC Group concluded by comparing two regulatory models. The first model adopted by the U.S. focused on encouraging investment in infrastructure, which led to a boom in the telecommunications industry and a rise in service levels; the second model focused solely on increasing competition and lowering prices, which led to a deceleration in growth and low quality of telecommunication services.

He stressed the necessity to build a regulatory framework that fosters investment, caters to the demands of the new digital economy which, to a large extent, depends on the ability of telecommunication companies to build the necessary infrastructure and offer high quality services at fair prices. T

STC and Orange improve collaboration

STC signed an agreement with the French Telecom Company "Orange" with the purpose of reinforcing and strengthening the work relations between them as well as improving their collaboration in various areas of the Saudi market as they relate to products, digital services, business activities and skills development. The agreement was signed at the Mobile World Congress 2016 in Barcelona between Dr. Khaled Hussain Al Biyari, STC Group CEO, and Mr. Marc Rennard, Deputy CEO, Orange Group.

The purpose of this agreement is to exchange experiences as well as the best improved practices regarding technology and marketing to enable the development of innovative products in various fields with the intention of enhancing services for different types of customers, whether they are individuals or corporations, that aim at providing support and at developing the ability of both groups to conduct business in various domains. This type of partnership with one of the largest Telecom companies in the world, stems from the Saudi Telecom group's intention to adopt several strategic partnerships with the most well-known telecommunications and data technology firms, to meet its customers' expectations, and to improve quality as well as the work level remaining consistent with the company's strategic orientations, as well as contribute to supporting the national economy. T

STC and Qualcomm to introduce smart solutions in KSA

At the Mobile World Congress 2016, STC's CEO, Dr. Khaled Hussain Al Biyari, signed an agreement with Qualcomm, represented by its President, Qualcomm MEA & Eastern Europe, Jihad Srage, in view of establishing a strategic collaboration between both companies in the field of modern and advanced solutions in various domains related to data technology and new generations communications.

This strategic agreement includes the various usages and publications of technologies such as those used by smart cities smart homes and smart transportation as well as "The Internet of Things", a technology aimed at the new generation of internet.

"The Internet of Things" enables devices, such as smartphones, to internetwork through the internet protocol and allow users to work remotely by controlling physical objects without being in a specific place to interact with those devices. For example, monitoring a babys breathing with an object embedded with a computer chip interacting with your smartphone while you aren't physically in the room.

Furthermore, the agreement includes the collaboration to introduce and present the most recent technology solutions in the third and fourth generations' networks and their development through the experience of the chips group at the companies associated with Qualcomm Inc. and its consistency with the Saudi telecom market.

In order to fulfill the growing needs and demands of Saudi Arabian society's various groups for the best and most recent technologies, STC plans on applying the various international testing and experiences corresponding to those needs. T

STC Group CEO Dr. Khaled Biyari visits Huawei at Mobile World Congress in Barcelona

CEO STC Group, Dr. Khaled Hussain Biyari, visited Huawei booth at the Mobile World Congress in Barcelona where he met with Mr. Ken Hu, Deputy Chairman of the Board, Rotating CEO and other high company Directors. This visit comes as part of the ongoing collaboration between STC and Huawei in the field of telecommunications and data technology.

Recently STC announced that it has successfully demonstrated the latest 4.5G (LTE TDD+) Technologies with Huawei, achieving unprecedented network throughputs. This remarkable achievement will enable STC network to deliver the fastest LTE data rates in the MENA and Europe.

STC achieved this success by using the most optimal spectrum currently available for the 4G-LTE Advanced networks. As such, STC proves its ability to develop and upgrade the network to provide its customer with high, unprecedented speeds that will exceed 1.5 GB, making it the highest 4G-LTE speed in the Middle East.

STC embarked on its journey with the mobile fourth generation "4G-LTE" as soon as the service was launched worldwide. From day one, STC had as its utmost priority to offer the service using LTE technology. STC always had a clear strategy and a specific vision towards 4G-LTE and associated services. It built an innovative and integrated network, pioneering the way ahead for this network domain.

With their headquarters in Riyadh, Saudi Telecom Group is the largest in the Middle East and North Africa based on its market value as it generated over 50,836,000,000 billion riyals (13,556,000,000 dollars) in realizable revenue in 2015 and 9,334,000,000 billion riyals (2,489,000,000 dollars) as net income.

STC was established in 1998 and currently counts about 100,000,000 customers worldwide and to which they provide high-technology knowledge-based innovative solutions. It focuses on providing services to customers through a fiber-optic network that spans 137,000 kilometers across Asia, the Middle East and Europe. In Saudi Arabia (the group's main operation site) STC operates the largest modern mobile network in the Middle East as it covers more than 99% of the country's populated areas in addition to providing 4G mobile broadband to more than 85% of the population across the Kingdom of Saudi Arabia.

Besides its main operation in Saudi Arabia, which it owns 100% of, STC's investments include 100% ownership in Viva Bahrain, 51.8% shares in Viva Kuwait along with a management contract, 35% shares in Oger Telecom Limited in UAE and which controls Turk Telecom, Avea in Turkey, Cell-C in South Africa, 25% shares in Binariang GSM Holding in Malaysia which controls both Maxis in Malaysia and Aircel in India. In addition to the above-mentioned, STC has investments in information technology, content, distribution, contact centers and real estate, all of which support its telecom operations across the Middle East. T

Huawei Global Media President, Joy Tan speaks to press at MWC

Teletimes Report

Joy Tan – President of Global Media and Communications, Huawei spoke with the media during one of the world's largest mobile shows, the Mobile World Congress, in Barcelona.

During her presentation, she talked about Huawei's progress over the past year and Huawei's vision as the world's leading Telecommunications company.

Some of the facts about Huawei from her presentation are include:

• Invests 10%+ of revenue into R&D annually

• Total R&D investment in the past decade amounted to US$38.3 billion

• Largest number of patents in China

• Nearly 40,000 patents in last 20 years

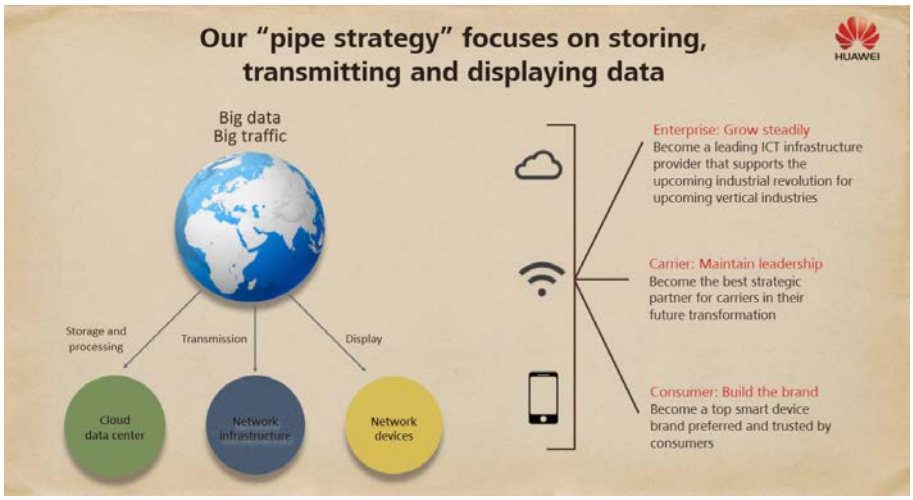
• Among Top 50 patent holders in US
• Among Top 10 patent holders in Europe

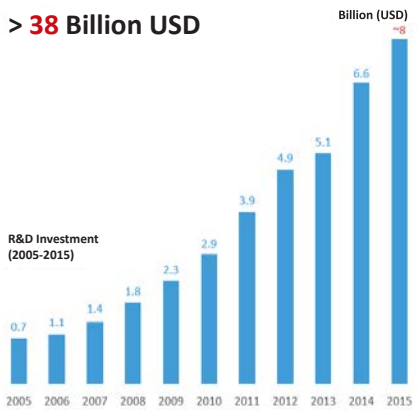
• 2004 to 2014, Huawei rose 200 places in the EU Industrial Investment Scoreboard Rigorous

Joy emphasized on Huawei's cutting edge solutions and its focus on R&D to maintain its leading position in telecom equipment market that helps operators provide better, more robust networks.

Huawei's best offerings to the mobile operators include the Single RAN network, a software-based system that converges 2G, 3G and 4G traffic, with minimal hardware replacement, reducing operating costs for telcos by up to 50% and the 400G core router which is the industry's first of its kind, deployed on a large scale, to help operators handle massive traffic flows. The router is able to handle tens of millions of phone calls and billions of transactions that allows operators to succeed in the era of Big Data.

Under dynamic leadership, Huawei has quickly become one of top 100 Global Brands (Interbrand), and is the first Chinese company to do so, standing shoulder-to-shoulder with brands such as Hugo Boss and Nintendo. T





teletimes INTERNATIONAL

Huawei Rotating CEO Guo Ping raises three things to do before 5G arrives

Huawei Deputy Chairman and Rotating CEO Guo Ping gave a keynote speech at Mobile World Congress 2016. Along with the CEOs of Ford and PayPal, Guo shared his thoughts on "mobile is connected living". In his keynote speech "what should we do before 5G", Guo commented that it will be a long time before 5G is deployed on a large scale, and industry players must ensure they do not miss out on opportunities. Guo also said that three things should be done before 5G arrives: increase connectivity, enable verticals, and redefine network capabilities. These initiatives will help address the uncertainties brought about by new technologies and new business models.

Guo Ping, Deputy Chairman and Rotating CEO - Huawei

According to Guo, by 2025, there will be 100 billion connections globally, and the connections among the 7 billion people on earth will only account for 10% of the total. The majority of connections will be between people and things, and between things and things. Guo highlighted a case from the manufacturing sector, pointing out that 99% of equipment with sensors has yet to be connected to the Internet. Therefore, the first thing to do before 5G arrives is to increase connectivity.

Narrowband Internet of Things (NB-IoT) is the key technology supporting large-scale IoT. It will make static things smart and interactive, which means many things in the world will begin to "talk". As sensors and cameras are widely deployed, their connection to the Internet will turn the physical world into a smart, digital world. This will enable people to better observe, analyze, and use data from the physical world so as to better understand this world. Then, time and space will no longer be an issue when it comes to communication. Full connectivity will lead to a better digital life and create huge business opportunities.

Guo continued, saying that the second thing to do before 5G arrives is to enable verticals. According to a UN report released in 2010, the ICT industry has long been supply rather than demand-driven. Vendors previously provided services based on available technologies. However, things have now changed. The ICT industry has already seen its business model shift from being supply-to demand-driven. As various smart city applications emerge in areas such as power grids and transportation, consumers will demand more from networks. ICT has become a new tool that verticals can use to increase their competitiveness. The ICT industry should seize this opportunity, develop a deeper understanding of verticals' needs, and help them go digital.

Increasing connectivity and enabling verticals have both led to higher requirements for networks. Guo added that the third thing to do before 5G arrives is to redefine network capabilities. As the hub of connections, carriers need to establish software-defined architecture, achieve agile operations, and significantly improve user experience, for example, by providing minute-level service provisioning. They also need to develop Big Data operation capabilities to effectively increase operating efficiency and explore ways to monetize Big Data. In addition, carriers need to choose a strategic partner that possesses integration capabilities. They also need to develop their own integration capabilities and help establish a more open and innovative ecosystem.

Based on one forecast, the total digital transformation market will grow to US$15 trillion by 2025. "We must not wait for the future to come; instead, we should work together to create the future," Guo was quoted as saying. "Before 5G arrives, we need to get started. We need to increase connectivity, and create new business models and new business value. This is necessary to support the integration of verticals and enable the digitization of traditional industries, thus driving forward the digital revolution." T

Huawei opening up massive commercial use of 4.5G & 5G broadband, the backbone of a digital economy

Recent Mobile World Congress saw Huawei and other heavyweights from the mobile industry lay the foundation for wider commercial use of 4.5G & 5G broadband—considered the backbone of today's digital economy.

Huawei Deputy Chairman and Rotating CEO Guo Ping has noted that industry players must ensure they do not miss out these opportunities in the coming five years. Guo said that three things should be done before 5G arrives: increase connectivity, enable verticals, and redefine network capabilities. These initiatives will help address the uncertainties brought about by new technologies and new business models.

To that end, over 300 leading telecom operators, analysts and enterprises attended the recent 4.5G Industry Summit to analyze pre-commercial deployments of mobile broadband. For its part, Huawei extended global open partnerships on 5G technologies with more than

Guo Ping, Rotating CEO - Huawei

20 operators, including Etisalat, Vodafone, Telefonica, TeliaSonera and more.

On the regional level, Ooredoo has now teamed up with Huawei to open a next-generation Innovations Lab in Qatar to pioneer broadband solutions and infrastructure. Saudi operator Mobily has further announced plans to optimize its network performance and investments through a network managed services agreement with Huawei over the next five years. In Oman, Omantel is enhancing and expanding its mobile broadband coverage by delivering the Sultanate's first Smart Street Lamppost solution together with Huawei.

A greater emphasis on openness and collaboration has been crucial to the maturation of broadband technologies at the start of 2016. This includes strengthened ties between global telecom operators, leaders of industry, product designers, and application developers. In a fully connected era, the ability to seamlessly combine expertise from these different sectors has led to a new industrial revolution—increasingly known as 'Industry 4.0'—which Huawei believes has the potential to reorder the global economy impacting the way that people learn, work and live.

"Changes in the ICT industry are the main driving force behind business development in the digital era. As a key enabler in the ICT industry, Huawei is committed to helping the telecom industry and vertical industries digitize their infrastructure, operational systems and business models with state-of-the-art technology," said Zou Zhilei, President of Carrier Business Group, Huawei.

At MWC the company also unveiled its five 'Big Initiatives' for the telecom industry to accelerate its digital transformation. Huawei describes the five initiatives as Big Video – Everywhere, Big IT – Enabling, Big Operation – Agile, Big Architecture – Elastic, and Big Pipe – Ubiquitous. The initiatives represent new opportunities for telecom operators in the Middle East and worldwide, foreseeing a potential $100 billion video industry market, a $1 trillion enterprise cloud market,

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Huawei launches MateBook at MWC 2016

Teletimes Report

At Mobile World Congress 2016, Huawei launched the HUAWEI MateBook, a 2-in-1 device designed to meet the evolving demands of today's modern business users. Building on Huawei's success in delivering beautiful and powerful high-end mobile consumer devices, the MateBook defines itself as a mobile productivity tool that seamlessly integrates mobility, high efficiency, work and entertainment.

Richard Yu, CEO Huawei Consumer Business Group at the launch of Matebook

The notebook is answering the demand for portable, stylish, smart devices that allow users to stay connected in any setting. Designed as a total solution for consumers who enjoy the flexibility of a convertible device, the MateBook is a premium product that perfectly balances mobility, productivity and design.

"With this landmark device, Huawei is demonstrating our industry-leading design and manufacturing expertise by bringing a beautifully crafted flagship product to market that is redefining the new style of business – connected computing across all devices in almost every scenario," said Richard Yu, CEO, Huawei Consumer Business Group. "Huawei has successfully channeled its comprehensive experience and excellence in building premium mobile products into the needs of the modern business environment by introducing a highly efficient device, seamlessly capable of integrating work and entertainment functions."

With the MateBook, Huawei is continuing its strategy of partnering with the most innovative market leaders. The device features a 6th Generation Intel® Core™m-series processor to handle the most rigorous business demands in a stylish, thin and light weight Fanless design.

"This is an exciting time for Huawei to enter the market with its powerful new MateBook," said Kirk Skaugen, Senior Vice President and General Manager, Client Computing Group, Intel Corporation. "By designing with the Intel Core m processor, Huawei is delivering a premium 2-in-1 experience that offers a compelling combination of mobility combined with full PC productivity. We are thrilled to extend our partnership with Huawei in this growing 2-in-1 market."

Built to operate on Windows 10, the MateBook also delivers the best of the legendary productivity tools and features offered by Microsoft Corp., including its latest browser, Microsoft Edge and the Cortana digital personal assistant.

"Our collaboration with Huawei offers consumers a new way to experience Windows 10 on a beautifully designed device," said Peter Han, Vice President, Worldwide OEM Marketing, Microsoft Corp. "Huawei appreciates how consumers want to interact with devices, and is bringing a fresh perspective to this space. Our relationship with Huawei is a great example of the growing ecosystem of premium portable Windows 10 devices." Combining the mobility of a smartphone with the power and productivity of a laptop, the MateBook is designed with simplicity in mind. With minimal embellishment and a sleek appearance, the device is made of high-quality aluminum unibody that is both elegant and sophisticated. The MateBook features a strong protective body to withstand the rigors of an on-the-go lifestyle, and its slim profile and ultra-low weight of just 640g makes it ideal to take anywhere.

The MateBook keyboard case is made of environmentally friendly, soft PU leather, the perfect choice to match style with functionality. The durability of the keyboard case also provides an ideal level of protection.

The keyboard features a 1.5mm keystroke and a chiclet keycap design, which allows for larger key surfaces to minimize typing errors. The built-in touchpad uses multi-touch technology that supports smooth and precise finger movements, combining comfort and utility.

The MateBook's 12-inch IPS multi-touch screen is further enhanced

Contd. on P-34

Etisalat group picks up multiple Glomo Awards at MWC 2016

Etisalat Group extended its history of success at the industry's most important annual awards, the Glomos. Etisalat came out on top of strong global competition to claim two awards, including the most prestigious title of overall winner and 'supreme' Connected Life Champion.

This followed earlier success for "Drones 4 Good" in winning in the 'Best Mobile Innovation for Health' category. Following a change in name and format, the Glomos – the new name for the Global Mobile Awards – were presented at a variety of ceremonies across four days during Mobile World Congress 2016 currently being held in Barcelona, Spain.

Etisalat's "Drones 4 Good" combines; telecommunication expertise, mobile financial services, power generation and drone technologies, to provide a solution for polio eradication in remote rural areas. Etisalat developed specialized drones to transport polio vaccine to remote locations. Etisalat's GSM and satellite networks allow for tracking and geo-mapping aligning and supporting medical teams on the ground. Etisalat GSM base stations also recharge cold boxes and drone batteries.

In addition to this highest industry recognition, Etisalat also received two special awards from GSMA for the work successfully executed in Pakistan and UAE with Digital Identity service – Mobile Connect.

Etisalat's award-winning mHealth/ wellness, Mobile Cashier and Virtual Mall services are showcased as a part of GSMA Innovation City, where leading global service providers are demonstrating industry-defining, customer-facing propositions.

"Our congratulations to all of the

winners and nominees of the GSMA's Glomo Awards this week of Mobile World Congress," said Michael O'Hara, chief marketing officer, GSMA. "In what was a remarkably wide field of more than 930 entrants, narrowed to 170 nominees, it is truly an outstanding achievement to have been selected by our esteemed judging panels. We thank all of our entrants, judges, sponsors and partners for supporting the 21st Glomo Awards." T

Contd. from P-33

by an ultra-narrow frame and a screen-to-body ratio of 84 percent. The screen boasts a resolution of 2160×1440 and a 160-degree wide angle for an immersive experience. The color gamut reaches an impressive 85 percent, capable of displaying true-to-life colors.

To ensure the MateBook delivers optimal performance as a mobile device, battery life and power were a top priority throughout the design process. Its 33.7Wh high-density Lithium battery provides enough power for nine hours of work, nine consecutive hours of Internet use and 29 hours of music playback. The device also features Huawei's exclusive power-saving technology to meet the needs of business users.

The MateBook's battery can attain a full charge in just two-and-a-half hours. When there is not enough time for a full charge, the device can power up to 60 percent battery strength in just one hour.

The MateBook runs on Windows 10 and is powered by a 6th Generation Intel Corem-series processor, putting high-speed processing power and the most essential business productivity tools, including Microsoft Office, at users' fingertips. The device offers up to 8GB of LPDDR3 memory and a solid-state hard drive with capacity up to 512GB. Utilizing a unique stacked hardware process, Huawei is able to deliver a fanless design, ensuring zero noise when the MateBook is in use.

When only a hand-written note will do, the accompanying MatePen stylus offers 2,048 levels of sensitivity, perfectly capturing users' subtle and diverse pen-tip actions with zero delay. For advanced business functions, MatePen supports graphics and mathematic functions, and can be used as a laser pointer for delivering presentations.
The MateBook provides security while maintaining quick access through the fingerprint recognition feature that supports 360-degree sensitive identification for fewer authentication failures. It takes only one touch to unlock the MateBook's screen – the fastest fingerprint recognition in the industry.

Additionally, the MateBookfeatures a Wi-Fi mobile hotspot for users to stay connected when an Internet connection is not available. T

Smart Cities are about enabling better lives for people

Safder Nazir

Regional VP Smart Cities & IoT, Huawei Technologies

Interview - Khalid Athar

Khalid Athar: Please share with us Huawei's approach towards Smart Cities?

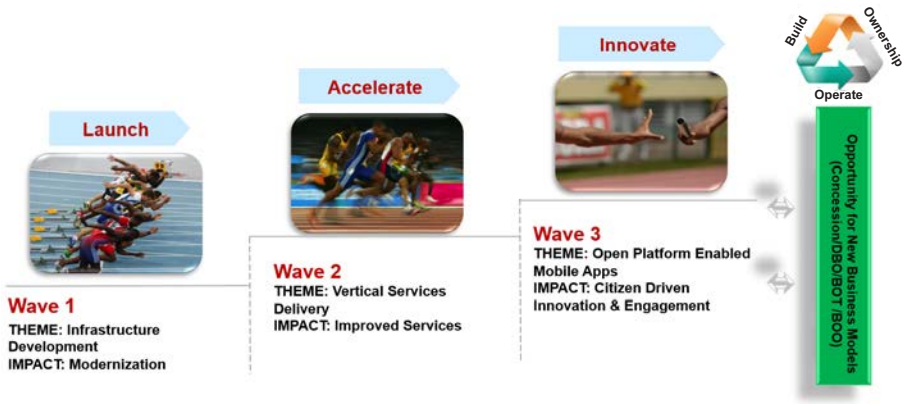
Safder Nazir: Smart Cities is a very popular concept today that is being approached in different areas in different ways. I would not say that there is one way to approach Smart Cities. It's not a one-time achievement but rather a process which may be different for each city/ country based on its current situation and its priorities.

There is a vast range of solutions Huawei has to offer through its technology and capabilities in this space across our three business lines i.e Consumer, Enterprise and Carrier.

Many countries approach Smart Cities from a point of view that envisions improving the fixed and mobile networks in the first place and provide good high speed coverage to the population.

A good example of this would be Saudi Arabia where things have changed dramatically over the last decade in terms of mobile networks and Huawei has been a key enabler for that.

We define Smart City development in three mega waves, the first of which focuses on Infrastructure. The second wave focuses on Vertical Services, an example of which is our "Safe City" solution that is very relevant to the current needs in the Middle East. The third mega wave is about Innovation and Applications. Dubai for example is focusing a lot on innovation. Even though they are also still working



“It’s not a one-time achievement but rather a process which may be different for each city/country based on its current situation and its priorities”

on the Infrastructure and Vertical Solutions, their main theme is based around innovation, applications and bringing data together. Huawei helps cities become smarter in all of these areas with respect to their own needs and priorities.

KA: Do you see any areas for improvement in the current approach or any downside to the Smart City initiatives?

SN: Smart Cities are about enabling better lives for people and their involvement is very important in making a smart city program successful. To ensure this success, I believe there should also be change management programs that focus on engaging citizens and creating awareness about the progress in smart city development.

Smart City initiatives are designed to impact the daily lives of people in a positive way and should do so if they are planned and executed properly. Communicating these benefits should help engage citizens in these programs and new services.

The only possibility of a downside in such initiatives is in the case that they are not properly communicated to the public and as a result, we do not see high adoption.

KA: How many cities in the region (Middle East) do you expect to become smart in the near future?

SN: I expect all major cities to adopt a smart city program. How many cities will be smart cannot be defined with a yes or no answer. We look at Smart Cities as a program of development. It’s an on-going process of becoming smarter than before. This means that all major cities will be adapting smart city programs that are tailored to their own situations. For example,

“The only possibility of a downside in such initiatives is in the case that they are not properly communicated to the public and as a result, we do not see high adoption”

Dubai is considered to be a leader in smart cities but it still has a smart city program. A smart phone you have today will not be considered smart 5 years from now because other things will have become smarter. You have to have a program of continuous improvement that requires a culture of innovation. Therefore, it’s difficult to answer from a yes/no approach but what I do believe is that all major cities will have a smart city program based on their own vision and needs.

KA: Would you like to comment on the current interest of governments in Smart Cities, especially in the Middle East?

SN: Urban development is being driven through smart cities today with a huge increase in interest and investment from governments around the world that want smart cities to enable eco-friendly economic growth, improve daily lives of their citizens and be able to benefit from smart governance.

Recent statistics show that over 1,000 smart city projects have been started or are underway in Asia, Europe, the Americas, the Middle East and Africa which is a very positive sign for us.

In specific to the Gulf region, the governments have invested a lot in ICT programs that enable smart government. In the UAE for example, over 95 percent of the government’s most important services that are used by citizens on a day to day basis have made the smart transition to mGovernment and mServices.

In the future, we are looking forward to more and more cities become a part of this and join this continuous program of improvement. As I have said before, smart cities are a continuous process of improvement and cannot be achieved without the right building blocks.

That being said, Huawei is committed to provide solutions and services across the world that will enable cities to become smarter and improve the daily lives of people. T

teletimes INTERNATIONAL

Mobily awards Cisco multi-year contract for Unified Core and next-generation Managed Services

• Deal delivers Cisco Managed Services across 6 markets, 15 operations

• Strategic partneringsupports Mobily expansion strategy; enables businessvalue creationof IoE and big data opportunities

• Automation solutions to optimize operational expenditure, deliver efficiencies and generate incremental revenue

At Mobile World Congress, Etihad Etisalat (Mobily), a leading mobile and data service provider in the Kingdom of Saudi Arabia, announced the signing of a 5-year agreement with Cisco to provide next-generation Cloud and Managed Services solutions.

The deal sees Cisco expand its current scope of work to include management and operation of Mobily's network, including third-party vendor equipment and devices across multiple markets, bringing Mobily enhanced automation and efficiency gains. Cisco's Managed Services solutions combine the company's renowned networking expertise and intellectual capital with analytics and real-time device monitoring to improve overall reliability and performance. This will reduce the number of human resources interventions in Mobily's network operations, delivering significant cost savings. Cisco's Managed Services solution is expected to significantly reduce Mobily's operating expenses.

Changing customer dynamics, the growth in connected devices and processes, and increased traffic demands are putting new pressure on service providers. Cisco's comprehensive service offering

Andy MacDonald, VP Global Service Provider - Cisco MEA & Russia

Ashraf Ismail Mohamed Ibrahim, SEO Technology Operations - Mobily

will provide complete monitoring, management, and support of multi vendor infrastructure and applications to increase agility of Mobily's business operations. This will enable Mobily to focus on its strategy of driving service innovation and helping to accelerate revenue growth by bringing new services to market faster.

As part of the new Cloud and Managed Services agreement, Cisco's tools, resources and processes will allow many solutions to work together as one open architecture to create a platform of possibilities. The solutions have been developed on a modular model to allow future expansion and support Mobily's development of new experiences for consumers and businesses.

By simplifying operations, Mobily will be able to accelerate time to value and respond faster to market changes. Cisco's capabilities will also enable Mobily to provide improved network reliability and service consistency as demands on its network increase, positioning the service provider to take full advantage of the unprecedented opportunities created by the advent of big data and the Internet of Things.

Ashraf Ismail Mohamed Ibrahim, Senior Executive Officer, Technology Operations, Mobily:"This agreement builds on our longstanding collaboration with Cisco and paves the way toward enhanced network performance and operational efficiencies. This represents a significant milestone in our evolution as we continue on our journey to deliver superior service levels and develop new offerings that meet fast-evolving customer and business demands."

Andy MacDonald, Vice President, Global Service Provider, Middle East, Africa & Russia, Cisco: "The awarding of a broader mandate for Cloud and Managed Services to Cisco reflects the confidence in our solutions to deliver tangible business value. We are committed to supporting leading service providers like Mobily in achieving the most value from new technology investments to attract more revenue growth, increase overall operational agility and enable better customer experiences." T

Zain makes strategic investment in neXgen Group, forming a 'Smart City' business unit

Zain Group, a leading telecom innovator in eight markets across the Middle East and Africa, has announced a strategic investment in neXgen Group, a leading smart city advisory and consulting services provider based in the UAE. The investment will lead to the establishment of a specialized business unit delivering smart city services to governments and mega real estate developers facilitating the deployment of smart city solutions and managed services across Zain's regional footprint.

The investment in neXgen Group was announced at the Mobile World Congress in Barcelona at a signing ceremony attended by Zain Group Chairman Asaad Al Banwan, Zain Group CEO Scott Gegenheimer, neXgen MD Ghazi Atallah, senior executives from Zain and neXgen, as well as industry figures and international media. The agreement comes exactly twelve-months after a strategic cooperation partnership was announced between the two entities.

Both Zain and neXgen hold strong opinions that the power of mobile internet is a driving factor to unlocking the potential of how people live their lives and transforming how they conduct their business. The companies are in agreement that with the confluence of Smart Technologies and Services, the Internet of Things and the power of data, smart city developments will enhance the lives of millions of people across the region.

The newly established business unit will focus on delivering smart city solutions and managed services and will include design and integration for applications including smart living in city districts, smart safety and security, smart education and health, and smart metering for the utility sector among others.

Commenting on the strategic investment, Zain Group CEO, Scott Gegenheimer said, "The cooperation with neXgen over the past twelve months has been an eye-opener for Zain in identifying and better understanding the requirements needed to maximize the substantial opportunities that we believe exist in the smart city space across our footprint."

Gegenheimer continued, "This strategic investment and establishment of a new dedicated smart city and managed services unit creates value for both entities, as it combines Zain's capital strength and expertise as a digital communications provider with neXgen's competence in smart city technology and services."

Ghazi Atallah, MD of neXgen Group commented, "Today neXgen is at the forefront of smart city expertise and thought leadership across the region. Through this partnership with Zain and the creation of a specialized business unit, we are confident in our ability to deliver unique offerings that address the growing demand in the market for smart city solutions and managed services. This business unit is set to unlock many lucrative opportunities in the connected society revolution, placing both Zain and neXgen as leaders in this space."

The concept of smart cities relates to the use of Information and Communication Technologies (ICT) to enhance performance and well-being, to reduce costs and resource consumption, and to engage more effectively and actively with citizens. A smart city should be able to respond faster to city and global challenges than one with a simple transactional relationship with its citizens.

Zain's investment in neXgen Group builds on the establishment of the Zain Digital Frontier and Innovation (ZDFI) business unit, which is charged with launching Zain into the digital space with the view to growing the company through new innovative business streams that add to Zain's customer service offerings.

ZDFI focuses on the areas of innovation; digital services; corporate venturing; and smart cities. T

Ericsson actively participates in MWC 2016

Teletimes Report

Ericsson President and CEO Hans Vestberg started Ericsson's activities at MWC Barcelona with the media and analyst briefing in Ericsson stand with focus on partnerships. At a large gathering at Ericsson stand he highlighted Ericsson's agreements with 20 major operators around the world to work together on 5G and launched an IoT transformation offering. In cloud, partnerships were announced with Amazon Web Services (AWS) to accelerate cloud transformation for service providers and with Quanta Computer to globally industrialize the cloud. 73 working days into the partnership with Cisco have generated close to 200 customer engagements with multiple customer wins and launch of new offerings.

Vestberg also joined the GSMA keynote "Mobile is Disruption" with CEOs from AT&T and Intel, discussing 5G, IoT and Cloud inside and beyond the telecom industry.
All executives stressed importance of detailing use and business ases.

The exchange included a playful gadget competition, with the speakers showing a 5G chipset (Ericsson), a 15USD LTE chipset (AT&T) and a 10 USD chipset (Intel). Both Ericsson and Intel showcased some flying devices (a quadcopter and drone, respectively.)

Commentary from GSMA keynotes

There was a continued sense of industries in rapid convergence, exemplified by Ford's President and CEO, Mark Fields, stating his company is moving from being an "auto company" to an "auto and mobility company." On the topic of smart cities, AT&T stated that everybody needs to protect the data from the edge to the cloud, an area where service providers can play. The panel agreed the first business

Hans Vestberg, President and CEO - Ericsson

opportunities will likely be found in the area of transport. In the session discussing analytics, the conclusion was "if data is the new oil, operators have been sitting on some immense reserves for years."

Other activities

Ericsson also joined a roundtable debating Data for Development as well as a leadership workshop in the GSMA Ministerial Program on how and where newly identified harmonized spectrum will be released. Ericsson hosted an energy efficiency roundtable, a joint Ericsson and Cisco media and analyst briefing, and a press seminar on the topic of IoT.

Three launches:

IoT Transformation – for operators to monetize IoT; Ericsson Dynamic Service Manager – a result of the Cisco partnership that dynamically optimizes the resources in multi-vendor, multi-domain networks; and Hyperscale Now – a software-defined infrastructure to industrialize cloud. Find all recent Ericsson launches here. In addition, Unified Delivery Network was announced today – an ecosystem with service providers and content providers to transform the Content Delivery Network market.

Partnerships

Cisco and Ericsson confirmed close to 200 customer engagements since the partnership was announced. Amazon Web Services (AWS) and Ericsson formed a global alliance to accelerate cloud transformation for telecoms service providers. Quanta Computer and Ericsson will help scale the design, development and manufacturing of datacenter solutions. Other Ericsson announcements were with AT&T, Google, Qualcomm, Geely, Verizon and Aster. T

Ensuring everything that can be 'connected' is 'connected'

Rafiah Ibrahim
President of Middle East & Africa, Ericsson

Teletimes Interview

Teletimes: The telecom industry is now facing cut-throat competition. What is Ericsson's competitive advantage in today's scenario?

Rafiah Ibrahim: We position ourselves as a strong leader in technology through services leadership that complements our technology. We provide top of the class services which means not only that the equipment we provide is effective and efficient but also that it is managed in a very good way. Secondly, we help operators in understanding how they would like to bring their business forward and advise them on how to build a network of the highest quality. We help the operators in attracting high value customers to increase monetization. By helping and advising the operators on how to create, manage, improve and monetize the best quality networks, we become a partner to the operators rather than a vendor.

Our biggest strength is the combination of 140 years' experience and our continued commitment to learn furthermore and invest in one of the world's best R&D. I believe that the foundation of any business is very important to its long term success. We have a good,

strong foundation which means we can go on for another 140 years as a leader but if our foundation was not strong, we would have been facing trouble today.

> **“ Our biggest strength is the combination of 140 years’ experience and our continued commitment to learn furthermore and invest in one of the world’s best R&D ”**

TT: Please give us some details on “IoT Transformation – for operators to monetize IoT” that was launched earlier at MWC.

RI: IoT Transformation is about helping operators deploy IoT and monetize it. Let me explain by giving you an example. Suppose we have 100 houses in an area with the fridge connected to a nearby supermarket and the fridge sends notifications to the supermarket whenever it is low on any item such as milk or fruits etc. Over time this will mean that the supermarket has a lot of data about all the households based on their consumption and they can create customized offers/packages for different households based on their consumption and these can be monetized. This is just one of more than a thousand possibilities that can be used to monetize IoT through Data Analytics.

TT: The Middle East has some of the world’s most tech-enabled cities and the governments are pushing for smarter cities. What role will Ericsson be playing in this scenario?

RI: Basically, our vision is that everything that can be connected will be connected. A smart city has the basic need of being connected all the time in order to support timely & continuous information flow. So the first thing that we do is provide the operators with good infrastructure that they can deploy in the smart city to keep it connected. On top of that, we provide software applications that will allow Smart Homes to be connected all the time and have easy to access to whatever they want.

> **“ As long as there is creativity and intelligence in us, we will continue to be more efficient, effective and innovative in what we do and how we do it ”**

So, we have a service-enablement platform, we have the hardware which will provide the connectivity, and adding on to that, we provide assistance in monetizing networks through expert data analytics.

TT: What is the ultimate goal that Ericsson is trying to achieve through 5G development?

RI: For a long time, people never really believed in 5G. Now that it’s here, we are all looking forward to it - quite similar to what happened with 4G. It is a continuous cycle, and once we go into 5G, we might be looking forward to something else like 6G or something else which it would be called.

As long as there is creativity and intelligence in us, we will continue to be more efficient, effective and innovative in what we do and how we do it. In the time to come, life will be different with so much technology around us and our vision is to make everything more user-friendly.

We are not just working to make 5G a reality for all, but to make it something that brings ease of life and increases standards of living.

As I have said before, we believe everything that can be connected will be connected and we want to be a part of making that happen. T

Ooredoo expands strategic partnership with Cisco

Ooredoo is building its long-term strategic relationship with technology leader Cisco, announcing two new significant agreements at the Mobile World Congress in Barcelona.

The two agreements will significantly expand the range of services available to Ooredoo customers, as companies look to deploy innovative solutions to reduce costs and increase productivity.

With the first agreement, enterprise customers will now be able to lease Cisco technology from Ooredoo, providing them with access to cutting-edge technology. Through the second agreement, Ooredoo will be able to bring Cisco's Virtual-Managed-Services (VMS) suite to the Qatar market.

Waleed Al Sayed, Chief Executive Officer, Ooredoo Qatar, said: "We are continually looking to enhance the range of services and solutions available to companies in Qatar, working with an ecosystem of technology leaders. Our relationship with Cisco, the worldwide leader in networking, continues to bring new solutions that enable companies to connect, communicate and deliver incredible benefits for their customers."

Through the new Cisco leasing agreement, companies will be able to lease essential business infrastructure without having to make a large investment. Hardware available through the agreement includes networking solutions, collaboration technology, telephony, video and instant messaging, and servers.

With the leasing agreement, each order will be in place for a period of three years, and customers will be able to buy back their equipment at the end of their contract for a low cost. Customers can also opt to discontinue using the equipment on lease, or have their solution replaced with new solutions.

Waleed Al Sayed explains: "In the current environment, more companies in Qatar are looking to manage costs and support a more streamline IT investment strategy. We have pushed for this leasing agreement because it enables Ooredoo business customers to stay up-to-date with the latest solutions and remain within their budgets."

Ooredoo has also agreed to work with Cisco to deliver Virtual Managed Services (VMS) to the Qatar market. T

Ooredoo Oman signs deal to bring Xiaomi's Devices

Bringing market-leading devices to customers and smartphone enthusiasts in Oman, Ooredoo has signed an exclusive one-year distribution deal with Xiaomi Inc., the 3rd largest smartphone maker in the world. Under the terms of the agreement, Ooredoo will be the first mobile provider in the country to offer Xiaomi handsets, renowned for their cost-effectiveness and high-functionality.

Starting from 10 March Ooredoo customers will be able to purchase four of Xiaomi's best-selling and flagship products including the Redmi 2E, Redmi 2 Note, Mi 4i, and Mi 4i Note Pro. Ranging from only 50 Rials to 200 Rials in price, the Chinese manufacturer's sleek, affordable and reliable devices have made it one of China's largest smartphone makers as well as one of the fastest growing companies worldwide.

Ooredoo will be introducing the new devices in multiple phases, with the Xiaomi hero devices expected to be launched in Q1 of 2016. The exclusive handsets will be available for purchase from any of Ooredoo's 40 stores across the Sultanate.

Ooredoo has invested heavily in its network to provide its customers with an enhanced mobile data and voice experience. Now covering 99% of the population, Ooredoo's modernised network, today ensures that its customers have 3G/3G+ capabilities across the Sultanate as well as a significant and rapidly expanding 4G footprint. T

teletimes INTERNATIONAL

Zuckerberg warns mobile industry not to ignore the unconnected

"Disappointment" that the 5G industry focus was on connecting things rather than the unconnected, and that there was a danger of just providing "faster connections" for rich people.

If that trend continued, argued Zuckerberg, there was a likelihood of making only a small dent in the unconnected number when Congress meets in 2020. "We need to finish the job of internet access," he said.

Internet.org, a Facebook initiative launched three years ago to connect the world's population, has made significant progress, insisted Zuckerberg, despite a major setback in India where the Free Basics service was banned.

Free Basics offers users free access to a certain range of data services – including the social network – but not the full internet. Much to the delight of ardent net neutrality supporters, who felt Free Basics and its use of zero rating unfairly manipulated internet usage, India's authorities ruled against it.

Zuckerberg, however, gave no sign of wanting to change the Free Basics model. "Every country is different," he said pragmatically, pointing out that Free Basics was still available in 38 countries and that it was responsible for attracting 19 million more people to the internet who didn't have access before.

"I can't think of any other project that has had such a big impact," said the Facebook CEO.
He also claimed that 50 per cent of Free Basics users, after using the service for a month, opted for a paid data package from operators.

Aside from Free Basics, Zuckerberg emphasised other aspects of Internet.org, plus his desire to

cooperate with operators and other ecosystem players to work together to lower infrastructure costs for expanding internet access into difficult-to-reach places. This, he suggested, might feed into lower data prices for consumers.

Zuckerberg expects to ramp up tests of solar-powered drones, equipped with laser technology to provide internet access, starting later this year, and that he would be in talks with operators about ways to deploy them.

The Facebook CEO also flagged Telecom Infra Project, a newly-launched engineering-focused initiative from Facebook designed to bring together operators, infrastructure providers, system integrators and other tech companies to develop new approaches to infrastructure.

Disappointed with TRAI's decision

Mean while Mark Zuckerberg said in another statement that he is "disappointed" with Indian regulator TRAI's decision to restrict programmes that provide free access to data, which will impact Facebook's Free Basics' zero rated service.

He said the decision would not deter Facebook from its goal of "connecting India" and "help lift people out of poverty, create millions of jobs and spread education opportunities".

"Everyone in the world should have access to the internet," he wrote in a Facebook post, adding that "Our mission is to make the world more open and connected. That mission continues, and so does our commitment to India."

Free Basics is a product of the internet.org initiative which offers users free access to a range of data services, including the social network. More than 19 million people in 38 countries have been connected through Facebook's different programmes, according to Zuckerberg.

TRAI ruled against differential data pricing earlier this week. The verdict was greeted with enthusiasm by net neutrality supporters but leaves doubt hanging over Facebook's internet.org strategy in India, at least in its current form. T

PSEB exhibits at MWC with five companies

Pakistan Software Export Board (PSEB) setup a Pakistan Pavilion for the second year in a row at Mobile World Congress with five IT companies from Pakistan. The pavilion had been setuped inside AppsPlanet hall which gets a lot of traffic related to mobile applications.

The five exhibitors with PSEB include Evamp, SecureTech, Versacom, VectorDynamix, and DPL. These exhibitors displayed marketing material about their applications and networked with exhibitors in more than thousand stalls at the event which is the largest telecom event of the year.

Secretary IT, Mr. Azmat Ali Ranjha and Chairman PTA, Dr. Ismail Shah, also visited Pakistan Pavilion. They were greeted by MD PSEB, Mr. Asim Shahryar Husain and the exhibitors. The secretary appreciated PSEB's efforts for participation in this large event with IT companies for the second year in a row and mentioned that participation in such large IT events is important to create awareness about Pakistan's IT industry and to increase IT exports.

He hoped that Pakistan's participation in this event will improve every year as more and more IT companies participate from Pakistan and the size of the pavilion increases every year to reflect the true potential of Pakistan's IT industry.

PSEB also played a documentary at the pavilion which it has produced on the IT industry of Pakistan. Many countries setup pavilions at Mobile World Congress to showcase products and expertise of their IT companies.

The event ran for four days and is expected to generate new foreign leads and business for Pakistani IT companies. T

Mobile has power to tame transaction fees – PayPal CEO

For billions of people across the world, even the simplest financial transactions can be either extremely time consuming or very expensive, which PayPal president CEO Dan Schulman said is "just crazy" in a world of high mobile and smartphone penetration.

In his keynote at Mobile World Congress, Schulman said: "We have the ability to make these transactions easier, faster, more secure and most importantly less expensive, which can make a real difference in the world."

Those outside the financial system spend about 10 per cent of their disposable income on unnecessary fees and interest charges, which is the same percentage that a typical family spends on food.

"We should blow through the paradigm that it's expensive to be poor. Our creed should be that managing and moving money should be a right of every citizen, and not just a privilege for the affluent," he said. Schulman said the democratising of money is an even bigger trend than the digitisation of commerce, the second huge trend that is defining the future of mobile.

PayPal is expanding its consumer platform because people are asking for more types of funding.

Consumers, he noted, have said they don't want to have to buy a prepaid card just to put cash on the PayPal platform. It now allows them to put some of their salary directly on the platform, cash cheques onto the platform and use peer-to-peer services.

These moves and its partnerships within the financial services ecosystem are designed to make mobile phones "the central point of consumers' financial lives". T

teletimes INTERNATIONAL

DWTC enhances ICT portfolio with Future Technology Week launch

Umbrella banner for 'pipeline technology' covers GISEC, GEMEC, The Big Data Show and The Internet of Things Expo

Dubai World Trade Centre (DWTC) has enhanced its expansive Information Communications Technology (ICT) portfolio by collecting four specialised industry trade platforms under the collective banner of the all-new Future Technology Week.

Future Technology Week, which runs 29-31 March across four halls at DWTC, will collect and showcase various 'pipeline technologies' and services featured within Gulf Information Security Expo & Conference (GISEC), the Internet of Things Expo (IoTX), The Big Data Show and Gulf Enterprise Mobility Exhibition & Conference (GEMEC).


Dr. Aisha Bin Bishr

"The umbrella Future Technology Week brand has been conceived to deliver heightened cross-pollination across its four components' complimentary ICT audiences," said Trixie LohMirmand, Senior Vice President, Exhibitions & Events, DWTC. "The collective platform is lean in terms of the segmented focuses of its inner parts and also robust in the sense that the sum of these parts offer content-rich experiences for visitors whilst facilitating a greater return on investment for exhibitors."

The consolidation of the four events comes with the IT market in the UAE alone estimated at close to Dh17 billion in 2015 – up from Dh12 billion in 2010 – according to the Dubai Chamber of Commerce and Industry. The Chamber predicts that value may swell to Dh22 billion by 2019, with per capita spending expected to exceed Dh2,000 by 2018.

Furthermore, the GCC's IT services sector - excluding the Kingdom of Saudi Arabia - is predicted to grow 8.64 per cent annually to reach a US$7.9 billion valuation by 2020. In the UAE, the IT services market was valued at over $3 billion in 2014 and is expected to grow to more than $5 billion by 2019 on-the-back of ongoing invest in e-government services, IT hardware for education and Smart City initiatives.

"The three-day Future Technology Week schedule has been carefully designed to ensure its individual exhibitions and conferences each garner their respective share of visitors' attentions, while also providing an industry-wide overview of expert opinion, innovative technologies and pioneering services in each ICT segment," added LohMirmand.

"By uniting four existing platforms under the Future Technology Week banner, we anticipate the enhanced educational offering to be particularly attractive to developers, programmers and enterprise

architects, as well as government departments, major international blue-chips and thousands of SMEs exploring the next generation of pipeline technologies to boost their fledgling businesses."

Supported by Dubai Smart Office as Smart City Partner, Future Technology Week will drive awareness of Dubai's Smart City initiative by providing a collaborative public and private sector platform to facilitate IoT-led innovation in areas including security, data and mobility.

"Collectively, we have arrived at an extraordinary juncture where Dubai's geographic advantage, economic outlook, resident diversity and access to best-of-breed innovators can be leveraged to transform the city into a benchmark for the world's emerging economies" said Dr. Aisha Bin Bishr, Director General of Dubai Smart Office. "Future Technology Week is an opportunity for these industry leaders and decision makers from all sectors to exchange experiences and forge collaborative partnerships towards realising the vision of Sheikh Mohammad bin Rashid to embrace technology innovation to make Dubai the happiest city on earth."

At Future Technology Week, interactive features taking place for the first time ever in the UAE include a live on-stage Hack by AECert and a one-day code-cracking Capture The Flag Competition where developers, engineers and code breaking enthusiasts will vie for cash and other prizes.

The exhibition is also launching The HIVE, a new innovative technology platform where participants present their ideas to a panel of judges with the aim of accelerating their product development and boosting the MENA entrepreneurship ecosystem. In addition, qualification through certified training sessions for I.T. professionals will take place for the entire week.

Among the key speakers headlining the exhibition are Dr. Aisha Bin Bishr, Director General of Dubai Smart Office; Abdulla Al Madani, Head of Dubai Open Data Committee & CEO of Corporate Technical Support Services, Dubai's Roads and Transport Association (RTA); Karine Dognin-Sauze, Deputy Mayor, Greater Lyon; 'Uber Hacker' John Bumgarner, Chief Technology Officer, US Cyber Consequences Unit; Tudor Enache, Specialist, aeCERT; Jonny Voon, IoT Leader, Innovate UK; and Rt Hon Dr Liam Fox MP, former Secretary of State for Defence, United Kingdom.

As part of Future Technology Week, IoTX opens on March 29 and concludes on March 30, the one-day GEMEC runs on March 29, GISEC opens on March 30 and ends on March 31, and the one-day The Big Data Show runs on March 31. Meanwhile, the exhibition segment runs from March 29 to 31.

Key sponsors of GISEC include BT Global as the Strategic Partner; Darkmatter as Cyber Security Innovation Partner; Lancope and Cisco as Platinum Sponsors; Fidelis Cybersecurity as Gold Sponsor; Pacific Controls as Keynote Sponsor and Huawei as Diamond Sponsor for IoTX. Furthermore, the sponsors for The Big Data Show are Microsoft as the Hackathon & Business Intelligence Analytics Partner and Dell Software as Platinum Sponsor. T

MTN Nigeria selects Gemalto for first commercial rollout of GSMA Mobile Connect Authentication Service

Aftab Raza Khan

Gemalto has been selected to provide its LinqUs Mobileo ID platform to MTN Nigeria. This new project, operated for MTN in SaaS mode by Gemalto Allynis Services, marks the first commercial rollout of SIM based services delivering convenient mobile authentication for all mobile users. Compliant with the latest GSMA standards, Mobile Connect, 'MTN Token' is available immediately to MTN Nigeria's 70 million subscribers and positions the operator as the country's foremost provider of secure digital identification and authentication.

MTN Token offers their users a universal digital ID combined with a mobile-based second factor authentication, for easy and secure web service access, payments and financial transactions validation. When using MTN

Eric Claudel, President - Gemalto MEA

Token for eCommerce, banking, insurance, ePublic and corporate networks services, the user's mobile phone number is employed as the username. Depending on the level of protection required by the service provider, the process is completed by simply pressing OK on the handset, or entering a unique user-selected PIN code.

MTN Token leverages the secure SIM vault, creating a trusted environment for sensitive data and transactions, without the initial infrastructure investment required by in-house implementations.

"The long-established partnership between MTN Nigeria and Gemalto is the perfect foundation for this ground-breaking project," said Eric Claudel, President for Middle East & Africa at Gemalto. "Bridging the gap between security and convenience, Mobile Connect represents the future of user authentication. It also fully supports operators in monetizing new value added services." T

Gemalto becomes accredited as GSMA Mobile Connect Accelerator partner

Gemalto has announced that it has become a GSMA Mobile Connect Accelerator partner as its Mobile ID solution is now accredited within the GSMA Personal Data program. Mobile Connect Accelerator is designed to help operators easily implement Mobile Connect, a global initiative from the GSMA that aims to provide a universal mobile phone-based authentication service, and to allow mobile operators and other service providers to select already compliant solutions, saving time and resource.

Gemalto has over 10 years of experience in the mobile identity market and its Mobile ID solution allows organizations to offer their subscribers a single means of authentication to online services using any mobile phone. By removing lengthy registration processes and password fatigue as sources of frustration, delay and vulnerability for consumers, the online connection experience is simple and straightforward while offering varying levels of assurance.

"Mobile Connect brings together an ecosystem of trusted mobile operators and service providers to provide consumers with the ability to use their mobile phone for managing their access to online services, giving them greater control and a means of access that is secure and convenient," said Marie Austenaa, Head of Personal Data, GSMA.

Francois Lasnier, Senior Vice President Identity Protection at Gemalto added, "Our Mobile Connect compliant solution allows businesses to be part of this growing eco-system, providing easy and secure registration and connection between service providers and consumers for a variety of market needs. Gemalto has been a strong supporter and technical contributor to the Mobile Connect initiative from day one. Through the Mobile Connect Accelerator program, mobile operators and other organizations can fast-track their deployment of digital identity projects and immediately start to benefit from providing an enhanced customer experience through a more seamless and secure sign-on process." T

du and SAP launch Cloud Services in UAE

du to offer SAP solutions in Software as a Service model, hosted from its Data Center in the UAE to fast-track digital transformation

UAE government enterprises will soon gain access to some of the world's smartest applications in 2016, thanks to a strategic partnership signed by du and SAP during the World Government Summit.

The partnership works to support the commitment to nationwide digitization and innovation. The UAE Vision 2021 aims for the country to become one of the Top 10 in the world in INSEAD's Global Innovation Index and in the World Economic Forum's Global Competitiveness Index over the next five years.

Combining du's Infrastructure as a Service with SAP's Software as a Service creates a unique off-the-shelf product – helping the UAE evolve to a cloud-based model, in line with global market trends.

In line with the UAE Vision 2021, and as a result of this strategic partnership, du will support UAE federal and local government agencies, and private enterprises, with SAP's innovative private cloud-based applications hosted on a state-of-the-art data center in the UAE.

With real-time private cloud applications, organizations can become more efficient and agile, scale up more easily with their business growth, and gain in-depth insights into operations, employee productivity, and the user experience. UAE organizations can also save money, as the cloud solutions are pay-as-you-go without additional capital investment needed in hardware, infrastructure, applications, or licenses.

Carlos Domingo, Senior Executive Officer, New Businesses & Innovation, du, said: "We're doing all we can to equip the UAE to become a global leader in innovation. This partnership fast-tracks the adoption of world class digital services in the UAE by making them more cost effective and easier to attain. Now customers won't have to face a massive up-front investment to increase their productivity with these services - they will only pay for what they use."

Organizations using these applications will be able to leverage the advanced network infrastructure of du, combined with the real-time analytics capabilities of the SAP S4/HANA business suite, which runs on the real-time SAP HANA platform.

Steve Tzikakis, Senior Vice President and General Manager, SAP South Europe, Middle East, and Africa, said: "With the market demand for private cloud applications growing in the region, SAP is further driving our co-innovation partnership with du to support the UAE's digital agenda. By leveraging global best practices and solutions, SAP is committed to using the power of the cloud to allow employees and customers to more easily engage with organizations."

du will offer organizations a wide range of back-end and customer-facing SAP solutions, including enterprise resource planning, human capital management for human resources, customer relationship management, marketing, and analytics and business intelligence. T

du Chairman envisions the Smart City of tomorrow during breakout session on the Internet of Things at the Government Summit

Ahmad bin Byat demonstrates the importance of data in emergency response

Ahmed Bin Byat, Chairman - du

Bin Byat, the Chairman of du, delves into how the Internet of Things will enable better societal efficiencies today in a breakout session entitled "The Smartest City in the World", envisioning a Smart future whereby entire cities are connected by the Internet of Things and powered by big data.

The discussion serves as a platform to discuss key benefits of building a city connected by the Internet of Things, with the creation of cutting-edge, global, smart technologies. As part of his address, Bin Byat highlights the recent regional emergency situations and how these challenges could be aided by tech-driven innovations.

"Technology has taken us in the shortest amount of time from isolation to interpersonal hyper-connectivity. And now, imagination has allowed us to build a universe in which the very things we have created can have their own inter-object connectivity: the Internet of Things, a reality in which over 13 billion objects are already connected to each other today, and expected to exceed 38 billion by 2020," begins Ahmad Bin Byat in his speech at the World Government Summit 2016.

Talking about the New Year's Eve fire, he explains that news now breaks on social media first, "we see how the news started to spread around the world on social media before conventional media [but] the tweets were mainly highlighting fireworks over the fire incidence." Instead, Bin Byat argues, telecommunications and data companies to collaborate and harvest the correct data, and thereby manage situations in a smarter way. By collecting the data and using this to manage response effectively, he argues, the public sector reduces the risk for both the public and the emergency response team.

As the cities become Smarter (more agile, more responsive, and more predictive) the impact of the Internet of Things on the public in the UAE will be revolutionary, enabling improved safety, security, business and efficiency in managing city resources such as the emergency services, he says. "Because by gathering, storing, processing and aggregating all the data that we receive, we can apply and implement greater operational efficiencies."

du has been supporting the Government Summit as Headline partner for three years in support of the Smart City and future vision, which du has a vested interest in turning into reality. Having already built the foundations for Smart City with WiFi UAE and the first Internet of Things network in Middle East (LoRa network), du is ensuring the backbone to the smart city and integration of Internet of Things is available to help the Government to realise this vision. By integrating systems of vendor agnostic and open platforms du believes Dubai can foster unlimited innovation and adoption of all evolving technologies to create a Smart Dubai. T

Gulraiz Khalid

Unified inbox and Oviphone collaborate for IoT wearables

Interview with Toby Ruckert, CEO Unified inbox and Jack Wu, CEO Oviphone

Could you please give us a brief on both companies?

Oviphone

Established in 2008, Oviphone has been a global player in the R&D, manufacture, and sales of smart electric products and mobile Internet solutions for more than 15 years. Oviphone is headquartered in Shanghai, and has sales offices in Shenzhen.

Oviphone specializes in smart watch ODM, OEM, and RWATCH-branded products. Supported by more than 50 R&D engineers, the product range includes bluetooth smart watches, watches designed for children and seniors, and NFC watches. Products have full FCC, CE, and other national and international certifications.

Prior to 2012, Oviphone's focus was on mobile phones and communications module R&D. In October of 2012, Oviphone leveraged this core smart watch technology R&D, software development, and hardware development to begin work on wearable smart devices. Products now include bluetooth smart watches, a children's GPS watch, a health management watch for seniors, and Android smart watches.

In 2014, Oviphone sold over 600,000 units.

Quick Facts:
● Oviphone is the only company producing bluetooth 4.0 devices in bulk

●Oviphone is the sole supplier for MTK low-cost wearable solution 2501

● Oviphone has specific product lines for children, seniors, and other user groups

"Using UnificationEngine™ to enable Oviphone's wearables to post on the communications channels people use most, creates the Internet of Communications for the Internet of Things (IoT) on your wrist!"

Unified Inbox CEO Toby Ruckert

● Oviphone's business partners include Intel, Disney, China Ocean University, China's Committee on Aging, Jiangsu Compass Research Institute, the Guangdon Federation of Disabled Persons, and now Unified Inbox

● Oviphone's NFC series wearables includes applications for payment, car keys, and business cards

● Oviphone's technology partners include Chende payment, Nanjing chengmai, and Guoxin

Unified Inbox

Global social Internet of Things (IoT) startup Unified Inbox (http://unifiedinbox.com) has operations in Singapore, New Zealand, India, Europe, and the U.S., with business units creating solutions for IoT, social media publishing, and unified communications analytics.

"UnificationEngine™-powered Oviphone solutions will help to save lives - when children go missing, when seniors fall, and when animals get sick or hurt."

Oviphone CEO Jack Wu

Our patented backend infrastructure, UnificationEngine™ (http://unificationengine.com) – the first true end-to-end, encrypted Unified Communications as a Service (UCaaS) platform – is the Internet of Communications for IoT.

UnificationEngine connects UCaaS with IoT, it enables apps and devices to simply communicate with users on the communications channels they already use. It solves developers and device makers' burning need of easier, faster, and cheaper integration of all incoming and outgoing communications into their breakthrough IoT products and services.

UnificationEngine™ powers our first SaaS app, social media governance, compliance, and publishing tool Outbox Pro (http://outbox.pro).

Outbox Pro provides a complete, cloud-based communications solution allowing any group of people – conference speakers/ delegates; employees/contractors, and more – to publish social media content with centralized approval,

tracking, and control. Unified connectivity analytics dashboard Media Flow (http://mediaflow.ac) also runs on UnificationEngine™. Media Flow provides insights into communications patterns across multiple channels over time.

Unified Inbox's global solutions empower people, businesses, and things to simply communicate.

Would you like to tell us a little about the capabilities of both companies and how they could be beneficial in case of a synergy? It will be best if you can shed some light on how the two companies complement each other in their abilities and mission.

Oviphone has created attractive, state of the art, full-featured smart devices (wearables) customized for specific markets and customer segments. Unified Inbox has created a platform (UnificationEngine™) that enables any IoT device to communicate on one or more different communications channels.

Unified Inbox gives Oviphone's devices market-leading feature/ functionality to fulfill its mission of helping people through increasing quality of life through the use of smart technology, while Oviphone gives Unified Inbox an ideal platform to fulfill its mission of creating an Internet of Communications for the Internet of Things.

Please talk a little about the vision behind this collaboration and what you plan to achieve together?

Integrating great hardware with great communications capabilities allows us to create life-changing new health, wellness, safety, and security products with each other. For example, specific innovative and cost-effective solutions will be created for when a child goes missing, a senior falls, and an animal gets sick.

Sample Use Case for Children

Your child goes missing at school. Did she just wander off, is she hurt, or worse? Would you rather wait until the next time the teacher takes attendance, or have the school and you be notified immediately?

Sample Use Case for Seniors

Your mother is getting older, and is fiercely independent. She refuses to move in with you, insisting on staying in her own home. She falls on the steps. Would you rather wait until someone notices or have emergency services be notified immediately?

Sample Use Case for Animals

You raise livestock, and you have a lot invested in your champion bull. Your vet only visits once a week. Your bull gets sick, would you rather wait until the next vet visit, or be notified immediately that your animal is ill?

Which areas/products will you be most focusing on with this collaboration and what type of application (business/consumer/ lifestyle/mobility etc.?) of your project do you expect?

We are focusing first on specific solutions for children, seniors, and animals. We anticipate solutions to be purchased in bulk (B2B) by schools, nursing and care centers, and animal centers.

When can we expect to see a practical outcome of this collaboration?

We expect to see initial Oviphone powered by UnificationEngine™ solutions available for sale later this year. T

Gulf to Africa, G2A, a new groundbreaking cable system will develop the telecommunications in Eastern Africa using Xtera's Turnkey Subsea Solution

Omantel, has signed a supply agreement with Xtera Communications, for building yet another unique submarine cable to strengthen its position in the region and beyond. The new cable will be built in partnership with Ethio Telecom, Golis Telecom and Telesom Company and will be a direct highway from Salalah in Oman to Bosaso in Puntland and Berbera in Somaliland, with a terrestrial extension to Addis Ababa in Ethiopia.

"This is the first step on our expansion journey into Africa where we will go from Oman directly to Somalia and then extend the cable further into Africa to Ethiopia," said Sohail Qadir, Vice President Wholesale Omantel. "These two highly under-served countries will soon be connected to our international low-latency network, gain access to all the content hosted in Oman with Omantel and consume services from Europe and Southeast Asia," continued Mr. Qadir.

G2A will be a new low-latency cable system with the purpose of bringing content closer to end-users in Africa and providing Somalia and Ethiopia with much needed Internet capacity and access to global cloud services and applications. The subsea part will run from Salalah, Oman, to both Bosaso in Somalia and Berbera in Somaliland. From Salalah, a terrestrial route through Oman will interconnect with all of Omantel's nine submarine cable systems, soon to be twelve, with some of them the largest in the world connecting the Middle East with the Far East, Europe and North America. Omantel also hosts a wide range of content and cloud providers in Oman serving the Middle East region from their central hubs in Oman, all which will be available to the G2A system.

"This is a fascinating project, first of its kind, where we will benefit from Omantel's international network stretching around the globe to bring tremendous change in the region as access to high quality and affordable Internet services affects all aspects of peoples' lives and their way of thinking", said Mr. Abdikarim Mohamed Eid CEO of Telesom Company. "At the same time we will gain access to the main Internet hubs in the world, the countries on Omantel's international network will become available through G2A to serve enterprise customers in Eastern Africa", added Mr. Andualem Admassie, CEO of Ethio Telecom.

G2A will be a new low-latency cable system with the purpose of bringing content closer to end-users in Africa and providing Somalia and Ethiopia with much needed Internet capacity and access to global cloud services and applications

Xtera will supply its turnkey 100G/100G+ submarine cable system solution for this project, including subsea optical repeaters, Nu-Wave OptimaTM Submarine Line Terminal Equipment (SLTE), cable and all marine services. Xtera's subsea repeaters, engineered around a number of electrical, optical and mechanical innovations, use Raman optical amplification to produce very low noise levels for maximal repeater spacing and offer wide spectrum for higher system capacity.

Sohail Qadir, VP Wholesale - Omantel

"We are extremely pleased to be selected by G2A consortium to build this new submarine cable system as a further validation of our turnkey offering of high-performance, high-reliability cable systems based on our innovative repeater," said Jon Hopper, President and Chief Executive Officer of Xtera. "This new build project is a perfect illustration of Xtera's innovative, flexible solutions for deploying new subsea infrastructure or upgrading existing cable assets under water."

Designed for 20 Tbit/s of capacity with the latest 100G technology, the G2A system will optimize the connectivity costs in Africa and add much needed capacity to an under-served and fast growing region. "Today we are mainly relying on satellite communication for our Internet needs; G2A will dramatically change the end-user experience and enable new types of low-latency services both for the residential and corporate sectors", said Mr. Abdulaziz Gureye Karshe, Chairman of the Board of Golis.
G2A will be ready for service in Q4-2016. T

ICT: An important factor of national progress in Uzbekistan

Teletimes Report

Since its independence, Uzbekistan has paid great attention to the comprehensive development of information and communication technologies and their wide application in all spheres of life of state and society.

Over a short period the authorities created the legal framework conducive to further formation and progress of market of IT-technologies.

In particular, in 1992 the Law "On telecommunications" was adopted, which established general principles of progressive promotion of the industry. Issues of ICT legal regulation received further development in the Law "On information" dated December 11, 2003. President's Resolutions "On measures for further implementation and development of modern information and communication technologies" dated March 21, 2012 and "On further development of computerization and introduction of information and communication technologies" dated May 30, 2002, became important documents in this direction.

At present the Complex program of development of National information and communication system of the Republic of Uzbekistan for 2013-2020

President Islam Karimov

is being implemented. This program was approved by President's Resolution dated June 27, 2013.

Making a statement at enlarged meeting of the Cabinet of Ministers dedicated to the socio-economic development in 2015 and the most important priorities of economic program for 2016, President Islam Karimov noted that in today's conditions in the era of Internet and electronics, the widespread introduction of information and communication technologies in the fields of economy, radical acceleration of creation of system "Electronic government" are of priority significance. As the head of our state underlined, development of ICT has a direct impact on the level of competitiveness of the country, allows you to collect and summarize vast amounts of information, offers great opportunities for management at strategic level.

The task of regular improving of the governance, strengthening the capacity of IT-industry was entrusted to the Ministry for development of information technologies and communications, created by the Resolution of the Head of our state dated February 4, 2015. In addition, since 2002 a Centre for development and introduction of computer and information technologies UZINFOCOM operates, which assists in the development and implementation of national programs of computerization and introduction of ICT in all sectors of public administration, economic and social spheres.

Over the past years, the country carried out systematic work on development of Internet, mobile communications and other areas, on formation of high-tech base of modernization of national economy.

The basis for development of ICT in Uzbekistan is the telecommunications infrastructure.

The current stage of development of telecommunications technologies, networks and communication infrastructure of the country is characterized by expansion of fixed and mobile broadband access, increase of switching centers for data transfer and voice traffic, modernization of trunk lines, as well as creation of infrastructure for

development of multimedia services.

Over the past 20 years in many regions of the country more than 2,000 kilometers of fiber-optic cables have been laid.

They are designed for broadband access to modern technology and provision of converged services such as video telephony, high-speed Internet, watching HDTV-channels and others. Due to the measures taken in 2015, the overall rate of use of international information networks increased by 42.3% compared to 2014 and amounted to 15.5 Gb/s.

Today, all mobile operators operating in our country, consistently introduce the fourth generation network 4G LTE, which allows to handle a large volume of information on Internet quickly and efficiently, download and view video streaming and high-quality photos, use online applications in education purposes and for business. All of these technologies enable Internet users in Uzbekistan to expand their usual ability to work with ICT.

In 2014-2015 Program of development of broadband access networks on Wi-Fi technology has been implemented successfully in the Republic of Uzbekistan.

As a result of comprehensive measures at airports, railway stations, places of frequent-stay travelers, parks, shopping malls and other public places of the capital and each administrative center of republic Wi-Fi points have been created.

The high development rates of national Internet segment should be separately noted. Uzbekistan has 10.2 million web users. According to UZINFOCOM center, in January 2016 the number of websites in the UZ zone exceeded 25 thousand, while growth totaled more than 30% compared to same period of last year.

The use of ICT and software products in the management and

production processes plays a major role in the development of sectors of the economy and the domestic industry. For instance, in 2014-2015 in the framework of a special state program 86 projects have been realized in order to introduce information systems in large joint-stock companies, associations and organizations totaling more than 330 billion soums.

Particular attention is paid to development of national market of software products.

In order to stimulate domestic programmers the National register of software developers has been created, which already included 69 companies. A directory of software manufacturers Software.uz has been developed that provides necessary information to citizens and businesses.

According to the Resolution of the President of the Republic of Uzbekistan "On measures to further strengthen the incentives of domestic software developers" dated September 20, 2013 new benefits and preferences for members of software industry were introduced. Thus, they are exempt from customs duties for imported equipment for their own use, components, parts, technical documentation and software until January 1, 2017.

It is known that interactive public services are of particular importance in protection of human rights and freedoms, saving time and expenditures for obtaining necessary information and services.

A consistent work on formation of "Electronic government" is carried out in the country. The activity of the Governmental portal of the Republic of Uzbekistan (gov.uz) and the The single portal of interactive state services (SPISS), located on the Internet at my.gov.uz, has been established.

Functional of SPISS expands dynamically, 235 kinds of interactive services are being rendered through it. Over the past five years this system received in total more than 200 thousand electronic applications of citizens and businessmen. Making an online appointment with the heads of government agencies, receipt of information on their

activities, various inquiries and sending requests became popular. In January 2015, the portal has launched a new system for discussion of draft legal acts related to business activities, and evaluation of existing documents. To date, 80 draft laws have been discussed through this system, 9 of them have been improved taking into account the opinions of citizens. At this time, the discussion of more than 20 legal acts continues.

Information system E-Sud for electronic proceedings is functioning effectively since 2004. Through its implementation, procedures such as keeping registration books, document management within court, direction of judicial notifications and procedural acts, familiarization of sides with case are completely automated now.

All educational institutions of the republic are connected to ZiyoNET network, which is functioning since 2005.

In the library of portal, which was updated in 2014, has more than 75 thousand units of informative-educational resources, including textbooks, dissertations, research papers and others.

As part of implementation of resolution of Head of our state "On measures on further improvement of foreign language learning system" dated December 10, 2012, "Foreign Languages" section has been created on ZiyoNET, which includes over four thousand materials such as textbooks, interactive lessons, games, relevant video and audio.

The country regularly hosts major events dedicated to the development of hi-tech industry.

In particular, Week of information and communication technologies ICTWeek Uzbekistan is being held since 2004. Traditionally it is opened with national exhibition of information technologies ICTExpo, which takes place once in two cities - Tashkent and Samarkand. The exhibition presents existing and future forms of ICT-based services, oriented to business community and authorities, and general population. Among the important events of the week - The Forum for Information and Communication Technologies ICTForum, wh ere representatives of leading companies, industry experts and foreign experts discuss state and prospects of progress in this sphere.

As part of the week conferences BestSoft Uzbekistan are also being held, during which they demonstrate the latest achievements of software developers, and e-Government Uzbekistan dedicated to the strategic objectives in the field of "e-government", results of implemented projects, exchange of experience and ideas in this direction.

Training of personnel in the development of ICT sector is topical.

Currently, major domestic centers of integration of education, science and industry - Tashkent State Technical University (TSTU) and Tashkent University of Information Technologies (TUIT) - train specialists in technical direction and for IT sector. In 2013, TUIT opened two new master's direction - management of the system "Electronic Government", and library science. At the same time, these universities carry out scientific research on the basis of active cooperation with leading industrial enterprises of the country.

From October 1, 2014 the branch of the prestigious South Korean Inha University commenced its activity in Tashkent. Professionals in areas such as computer and software engineering, computer network engineering are trained here.

Thus, the domestic IT-industry is developing successfully, joint ventures are being created, new software projects are being developed and implemented, Internet is gaining more space. Ongoing consistent measures in this direction contribute to further development of information society in Uzbekistan and its integration into the global information space. T

Huawei opening up massive commercial use of 4.5G & 5G

Contd. from P-32

and the number of IoT connections expected to grow 10-fold.

City planners are placing particular emphasis on using ICT to develop safer urban communities. According to Huawei, safe city development has now shifted from an incubation period focused on video surveillance to a rapid-growth stage embracing comprehensive public safety management. This includes building multidimensional and intelligent security systems featuring awareness, visualization, and collaboration—helping governments improve crisis prevention and emergency handling capabilities while reducing crime rates.

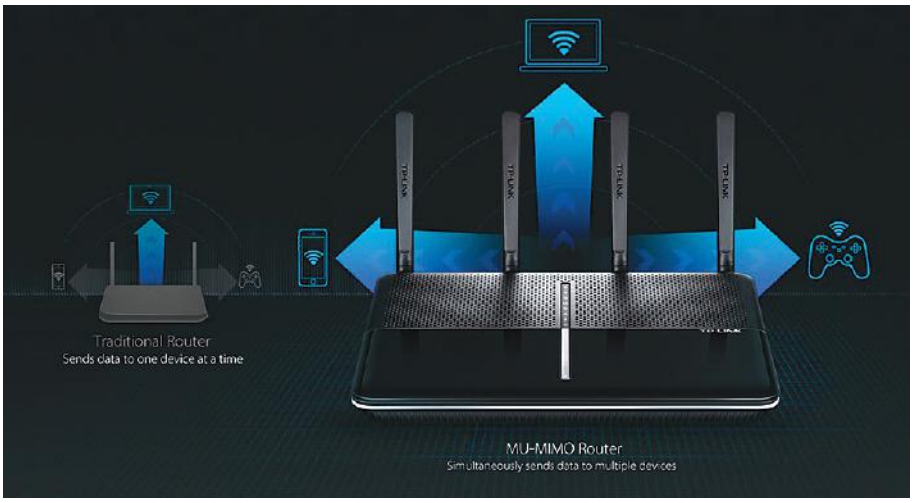
Tapping into the potential of more powerful mobile networks, consumers also got a glimpse this past week of Huawei's new flagship device the Huawei MateBook—a 2-in-1 gadget designed to meet the evolving demands of today's modern business users. Building on Huawei's success in delivering powerful high-end mobile consumer devices, the MateBook defines itself as a mobile productivity tool that seamlessly integrates mobility, high efficiency, work and entertainment.

According to forecasts, by 2025 there will be four billion new broadband users worldwide, more than 100 billion things will be digitally connected, and every person's consumption of data will increase more than 500-fold. Huawei's continued investments in ICT innovation are aimed at creating value from this digital transformation, with the company recently ranking on Fast Company's annual list of the world's 50 Most Innovative companies. T

TP-LINK Introduces the world's fastest VDSL modem router

Dia Hamdan

TP-LINK, the innovator of home, small and medium business networking solutions has introduced its latest AC2600-VoIP-WLAN-DSL-Router, the Archer VR2600v. The unsurpassed power of the Archer VR2600v is perfect for gaming enthusiasts and entertainment aficionados. Featuring blazing 2600Mbps Wi-Fi speed, Multi-User MIMO technology, 4-stream 11AC wireless technology, and a 1.4GHz dual core processor, the Archer VR2600v delivers flawless Wi-Fi performance to support high-bandwidth activities, such as multi-player online gaming and multi-device, high definition video streaming.



Extreme Connectivity

The integrated VDSL modem and VoIP capabilities make the Archer VR2600v one of the most powerful and adaptable modem routers on the market today. Thanks to the VDSL modem and the high-quality IAD, the Archer VR2600v is capable of providing Internet, VoIP, and DETC base station services, all at the same time. With DETC base station services, you can connect up to six cordless or CAT-iq 2.0 telephones and enjoy a wide range of features, including: Caller ID, call waiting, call forwarding, conference calling, and voicemail.

Extreme Efficiency

The Archer VR2600v features industry-leading Multi-User, Multiple-Input, Multiple-Output (Multi-User MIMO) technology to boost efficiency, increase, and provide a better overall Wi-Fi experience. Instead of supporting just one internet-enabled device at a time, Multi-User MIMO technology allows the router to support several devices at the same time, effectively multiplying Wi-Fi performance for anyone who loves to multitask.

Extreme Power

The router is equipped with 4-stream 11AC wireless technology that boosts its peak Wi-Fi speed to multiply and maximize performance. It leverages this power to deliver four independent, yet sharable, spatial data streams across all internet-enabled devices, including smartphones, tablets, TVs, game consoles, etc. The powerful 1.4GHz dual-core processor ensures smooth performance while you are simultaneously browsing, streaming, gaming, and more.

Extreme Speed

To ensure a superior experience across multiple devices, the Archer VR2600v utilizes its dual 2.4GHz and 5GHz bands to reach a combined, blazing-fast speed of 2600Mbps, delivering more than two gigabits of data per second. The Archer VR2600v has four Gigabit Ethernet ports, for secure connections with other internet devices, and two USB 3.0 ports, which transfer data ten times faster than the USB 2.0 standard. T

PCCW reports solid financial results for 2015

PCCW has announced the audited consolidated results of the Company and its subsidiaries for the year ended December 31, 2015. Some key figures are as follows:

• Core revenue increased by 19% to HK$39,149 million; consolidated revenue (including PCPD) increased by 18% to HK$39,314 million

• Core EBITDA increased by 16% to HK$12,139 million; consolidated EBITDA (including PCPD) increased by 15% to HK$11,878 million

• Core profit attributable to equity holders of the Company increased by 23% to HK$2,370 million; consolidated profit attributable to equity holders of the Company from continuing operations (excluding PCPD's one-time gain on disposal in 2014) increased by 36% to HK$2,117 million

• Final dividend of 17.04 HK cents per ordinary share

PCCW registered a solid result for the year ended December 31, 2015 demonstrating resilient operational and financial performance while continuing to reinvest and drive future growth.

Core revenue for the year ended December 31, 2015 increased by 19% to HK$39,149 million. Core EBITDA increased by 16% to HK$12,139 million. These results in particular reflect the successful integration of CSL Holdings Limited and the accompanying financial benefits.

Including PCPD, consolidated revenue for the year ended December 31, 2015 increased by 18% to HK$39,314 million and consolidated EBITDA increased by 15% to HK$11,878 million.

Core profit attributable to equity holders of the Company increased by 23% to HK$2,370 million in 2015 from HK$1,931 million in 2014.

Excluding the one-time gain on disposal of the entire interest in Pacific Century Place, Beijing by PCPD in 2014, the consolidated profit attributable to equity holders of the Company from continuing operations increased by 36% to HK$2,117 million in 2015.

Consolidated profit attributable to equity holders of the Company was HK$2,295 million, and basic earnings per share were 30.58 HK cents.

The board of Directors (the "Board") has recommended the payment of a final dividend of 17.04 HK cents per ordinary share for the year ended December 31, 2015.

BG Srinivas, Group Managing Director of PCCW, said that in the coming year the Group would continue to embrace the changes brought by the increasing digital lifestyle of consumers and digital transformation of enterprises.

"There will be increasing demand for content, connectivity, IT and cloud capabilities to drive business efficiencies and enhance customer experience, such as real time big data analytics which is made possible with the advance of Internet of Things ("IoT").

As a customer-centric organization, the Group will continue to build our offerings and innovations to meet the future needs of our customers in the medium and longer term, thereby also benefiting from this trend. In this regard, our media, IT solutions and telecommunications businesses can collectively play a significant role and contribute to the overall growth of the Group," he said.

"While maintaining our leadership in the Hong Kong pay-TV market, PCCW Media will be actively rolling out the Viu over-the-top ("OTT") video service internationally. Following the launch in Hong Kong, Singapore and Malaysia,

BG Srinivas, GMD - PCCW

Viu will have expanded presence in Indonesia and India in the first quarter. The service will capture the growing digital advertising and online subscription market. It is our goal to become the preeminent multi-screen video entertainment hub for Asian content in the region, and ultimately globally," Mr. Srinivas said.

"On domestic free television, HK Television Entertainment Company Limited has assembled a creative team of professionals in preparation for the commencement of broadcasting in April 2016. It has embarked on the production and acquisition of quality content to bring over 4,000 hours of fresh programming each year to offer Hong Kong viewers more choices in TV entertainment," he added.

Srinivas said, "PCCW Solutions has identified a number of growth drivers and will capitalize on the increasing market demand for digital, IoT and cloud solutions and facilities in Hong Kong and mainland China.

A recently launched cloud solutions suite, "Infinitum", offers customers comprehensive enterprise business applications and digital and analytics solutions." T

Explanation of terms SaaS, PaaS, IaaS and Multiple Machine Operating Systems (MMOS)

Khawar Nehal

The Cloud

The cloud is used to represent the network called the Internet.
This image is used to hide the complex and varied methods of communications which make it possible to connect almost all the computer, mobiles and devices in the world.

So when anyone says the word "cloud" in the computer sense, just replace it with the older term "Internet"

So if they are offering a service in the "cloud" it means the location of the computer(s) which is/are providing the service is/are not at your physical location. They are residing in the service provider's office or data center (fancy name for a large building with many computers).

Cloud Application Service or Software as a Service (SaaS) means the software is owned by the service provider and the machine is also owned by the service provider. You are provided a way to use their computer. Through a browser or other software. But the data, software and computer are all in control of the service provider. What happens here is you need to decide who is responsible if the computer or software has a fault. Who is responsible for the backup and restoration of the data.

The service provider may allow the use of the computer and the software and expect you to do a backup of your data somehow with software they provide in their computer and also put it back in case their computer gets refreshed/reset. There are cases where this is not possible. Many users of these services are not aware that they are paying for the computer, software and support but the backup and restoration in case of a problem are not the responsibility of the service provider. In this case, the user has an option to get a service (if available) from the service provider or hire a third party service provider to do the backup or do it themselves. For example if you use Gmail or Facebook. You have your data on their software and their servers but they shall not guarantee its safety. Also it is not possible to backup and restore the facebook data in case facebook loses it because there are no softwares made to do that. The responsibility still lies on the user to have a copy of the data. Also in these cases if there is a major problem and they do lose your data, there is no clear procedure or software provided to do a backup and a restore by the user or third party. So whenever using services on the internet you need to infor your IT managers or CIOs to be aware of the risks of losing the services with no backup to fall back on.

The advantages of the cloud application services = software as a service = SAAS method is that small companies can start using large and complex applications faster in their day to day work.

However just to complete the responsibility aspects, you need to discuss with us to make sure you are covered. We can help analyze and recommend a complete strategy to avoid surprises.

There are also extra softwares which allow the SAAS softwares to connect to other software. The other softwares can be in the user's computer/device or they could be other softwares which are managed by other SAAS suppliers.

An example is getting an accounts software from one supplier and the CRM software from another supplier.

The best example of SAAS is the web server. Almost all companies host their web and email server on other supplier's computers. The old term for this is web hosting. However if your web server is located somewhere else, then it is the same as using the web server software as a service provided by another service provider. Same issue applies. They are providing the use of the software. The backup of the website and all emails and whatever data you have on their computer is the user's responsibility. Some providers provide automated backup services, but this does not absolve the responsibility of having a copy of all your data in case the service provider folds.

If the provider goes down or out of business or gets a major cracking attack then bye bye data. It has happened to many providers before so you need to understand that there is no choice when it comes to having your data backed up in a place where you can ALWAYS access it independent of the service provider.

For small companies, SaaS eliminates the need to install and run applications on individual computers. Also it is easy for enterprises to streamline their maintenance and support, because many things can be managed by vendors.

SaaS Examples: Gmail, Web hosting, Google Apps, Salesforce, and Facebook.

Cloud platform services = Platform as a Service (PaaS) or what we used to and still call server hosting. The only thing added to server hosting is the option called virtualization. This means there are multiple machines and resources which can be managed. However,

the servers are used by the customer to load their own applications. So the user is responsible for all the software, data, backups and support for the user. The platform service providers are only responsible up to the level of the hardware, and maybe in some cases the installation of the OS. After the installation of the OS, it is completely in the hands of the customer what they are going to do with the machines.

Some companies use a hybrid approach. Some of the computers are sourced from the service provider and some are located in their own offices. The reason is that regular tasks are placed in the own office computers while tasks which create a surge in demand for resources can be allocated easily as needed and released when they are done with their need. So you pay for the resources you need and do not have to have spare computers lying around. This has been made possible by the virtualization technology which allows images of complete computers to be copied and run on differnet computers without hours of setup per computer. And these images are gigabytes in size so the large fiber networks have allowed the movement of these images at a reasonable cost and within a reasonable amount of time. This is also one of the reason for the popularity of cloud services these days.

Cloud infrastructure services = Infrastructure as a Service (IaaS) these are the new thing on the block after virtualization technology was introduced. What has happened is that three technologies are now more common. Storage area networks, which are harddisk type online storage which is available to servers over a network. That means the harddisk is not inside the server but in a separate computer and multiple storage computers (boxes) can be combined together to provide a large and fast storage service to the server. The server is supposed to run software which the end users are going to use. The server Virtualization allows multiple servers to be combined to make a much faster virtual computer which runs the applications faster. The network switches can be configured and are also not more dynamic. So if the application needs more bandwidth to communicate with other computers, then that can be arranged. So there are three main services which are more flexible. Computer (CPU power), Storage (SANs) and Networking (Configuration). By making them dynamic and easier to combine and return on demand results in a new service called Infrastructure as a service or IaaS. Now there are new softwares like openstack which can convert the IaaS services into a seamless whole. So for example the CPU power may be virtualized by Xen or VMware but OpenStack shall manage the resources available from Xen and VMware and present it in a single form via API (Application programming interfaces) to developers who develop applications for openstack. This allows developers to not have to worry about which software is doing the virtulization, storage or networking. All they need to do is use the OpenStack interface layer to make their application.

The new term for softwares like openstack is MMOS (Multi Machine Operating System).

The difference between an MMOS and a distributed OS is that the distributed OS is responsible for controlling the hardware resources directly without any other layer.
The MMOS is a layer of software on top of another layer like Virtualization, Storage Area Networks, and Software Defined Networks and more dynamic virtualizations still being developed. This does come under the more general and broad term distributed computing but not actually a distributed OS.

Other examples of Multiple Machine Operating Systems (MMOS) are: Amazon Web Services (AWS), Microsoft Azure, Google Compute Engine (GCE) and OpenStack of course.

The supplier of IaaS = MMOS service are responsible for the hardware, networking, storage hardware, software, the virtualization, SAN, and dynamic networking software (Software Defined Networking) and also to provide an MMOS which the developers can use to make applications.

Some MMOS = IaaS providers provide databases, message passing methods over the many machines as a seamless service much like an operating system (OS) does for applications running on a single machine.

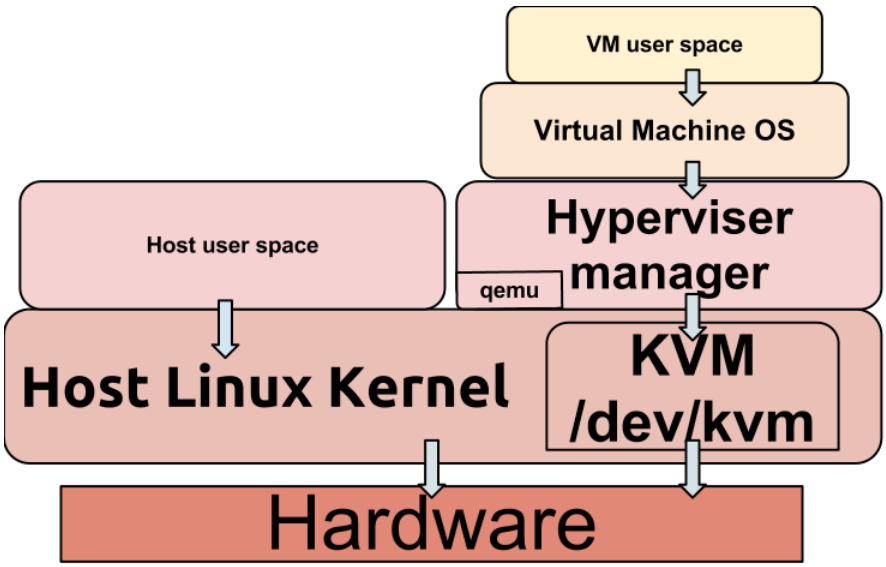
The new version of IaaS = MMOS which I shall describe in details is OpenStack.

The latest version has components called the following : Nova, Glance, Swift, Horizon, Keystone, Neutron, Cinder, Heat, Ceilometer, Trove, Sahara, Ironic, Zaqar, Manila, Designate, Barbican, Searchlight

Each of these components provide services which the developers can use over multiple machines without having to worry about how many machines there are. They just need to request the number of resources they need and use them. The ultimate in distributed computing. Except for the fact that since the last 50 years that distributed computing has been being developed, this is the best example of efficient and useful distributed computing we have so far.

Something worthy of being called a real Multiple Machine Operating System (MMOS). The development shall continue and we shall see even more applications and fancy uses of this technology to solve real world problems. What this technology allows is easier scaling for developers who need more power than a single computer can provide without having to think about multiple computers or the connections between them.

The most common is Nova. This is the cloud computing fabric controller. It manages the CPU resources and works with a variety of virtualization technologies like Linux KVM, Xen, Linux LXC and can also control the CPUs directly (bare metal) just like a real operating system.



Glance is a disk image service. It provides discovery, registration, and delivery services for disk and server images. You can use it to make unlimited backups.

Swift is the scalable redundant object storage system. The software creates objects which are written to multiple disk drives spread throughout servers in the data center. This reduces the chances of losing the data in the object. It is similar to a software based redundant file system. Except instead of files it stores objects.

Horizon is the dashboard which gives administrators and users a graphical interface to access to manage the resources available to openstack. Horizon allows interfacing with third party products and services so that features like as billing, and monitoring can be enhanced or added to.
Keystone is the user management service. It provides authentication, and can integrate with other directory services like LDAP.

Neutron is the part that manages the networking configurations for the resources. It allows the users to prevent bottlenecks in the communication between the resources available.

Cinder is the part the provides block level storage devices. So you can say it provides virtualized harddisks.
Heat coordinates multiple composite applications using templates.

The Heat template describes the infrastructure for the cloud application in a text file. The format is simple and human readable and also machine readable. The infrastructure resources defined in the file include: servers, floating IP addresses, volumes, security groups, users and many more. It also specifies the relationships between resources. Like which volume is connected to this server. All virtual of course. This helps setup all the resources before an application is started. Sort of like startup scripts in an OS which turn on all the services before turning on the applications which use those services.
Ceilometer is a service which provides support for billing for all resources used. It maintains counters for resources.

Ceilometer offers these services:

1. polling agent - daemon designed to poll OpenStack services and build Meters.

2. notification agent - daemon designed to listen to notifications on message queue, convert them to Events and Samples, and apply pipeline actions.

3. collector service designed to gather and record event and metering data created by notification and polling agents

4. api service to query and view data recorded by collector in internal full-fidelity database

Trove is a database service. It allows users to quickly and easily utilize the features of a relational or non-relational database without the burden of handling complex administrative tasks. Provisioning and management of multiple database instances is possible as needed. The service focuses on providing resource isolation at high performance while automating complex administrative tasks including deployment, configuration, patching, backups, restores, and monitoring.

Sahara allows users to provision Hadoop clusters by specifying several parameters like Hadoop version, cluster topology, nodes hardware details and more.

Ironic is a bare metal hypervisor for openstack. It can be extended by third party plugins to offer new functionalities based on vendors.
Zaqar is a multi-tenant cloud messaging service for Web developers. The idea came from Amazon's SQS product with additional support for event broadcasting.

Manila is the OpenStack Shared File System Service. It is an open API used to manage shares in a vendor independent format. Standard capabilities are to create, delete, and give/deny access to a share and can be used standalone or in a variety of different network environments. Existing storage appliances from EMC, NetApp, HP, IBM, Oracle, Hitachi Data Systems and Red Hat GlusterFS are supported as of now.

Designate is the DNS Service
Searchlight provides searching services over multiple services.

Barbican is a REpresentational State Transfer Application Programming Interface (REST API) designed for the secure storage, provisioning and management of passwords. It is aimed at being useful for all environments, including large transient setups.

Work continues on these Multi Machine Operating Systems (MMOSes) to allow developers to develop applications for them using their Application Programming Interfaces (APIs).

For more info: email- khawar@dubai-computer-services.com

Dr. Daniel Ritz takes over as PTCL President & CEO

Teletimes Report

The Chief Strategy officer of Etisalat Group Dr. Daniel Ritz has assummed the charge as President & CEO of the PTCL Group with effect from 3rd March 2016. He succeeds Mr. Walid Irshaid, who was President & CEO of the PTCL Group since March 2007

Mr. Azmat Ali Ranjha, Chairman PTCL Board said "I am pleased to announce that Dr. Daniel Ritz will be leading PTCL through the next phase of its growth and development. I would also thank Mr. Walid Irshaid who steered PTCL during tough times and helped grow the company in challenging telecom era of Pakistan."

Commenting on his appointment as President & CEO of the PTCL Group, Dr. Daniel Ritz said: 'I am truly excited to join PTCL. Taking over from a worthy predecessor in Mr. Walid Irshaid, I plan to position PTCL as an integrated telecom provider of Pakistan. The new position is a challenge that I plan to take on with all the enthusiasm and energy."

Before being named as President & CEO of the PTCL Group, Dr. Daniel Ritz was working with Etisalat Group as Chief Strategy Officer to lead and direct the Group's Corporate Strategy, Business Development, Mergers & Acquisition and Strategic Project Management functions since 2012. He also serves as Board Member of a number of Etisalat's international subsidiaries.

Aged 50, Dr. Daniel Ritz holds a Ph.D (magna cum laude) from the Hochschule St. Gallen in Switzerland and was a visiting Ph.D student at Harvard Business School. Prior to Etisalat, he was with Swisscom as a member of the Group's Executive Board where he also held non-executive board positions at national and international subsidiaries. In 2008-09, he was Chief Executive Officer of Swisscom Central & Eastern Europe.

Daniel Ritz
President & CEO - PTCL

Walid Irshaid
Former President & CEO - PTCL

"I am truly excited to join PTCL. Taking over from a worthy predecessor in Mr. Walid Irshaid, I plan to position PTCL as an integrated telecom provider of Pakistan. The new position is a challenge that I plan to take on with all the enthusiasm and energy"

He started his career with The Boston Consulting Group, rising to Partner & Managing Director.

The outgoing President & CEO of the PTCL Group, Mr. Walid Irshaid transformed the organization from a state-run monopoly operator into a highly competitive, advanced and integrated service provider in Pakistan's private sector. Under his leadership PTCL started Broadband Internet services in fixed and fixed wireless domain along with multimedia service.

Talking about his years at PTCL, Mr. Walid Irshaid said: "I took over PTCL when it was privatized and I had to contend with all the pains of transformation along with my other colleagues who had moved over from the public sector. By the grace of Allah, we have together taken PTCL through all the ups and downs and today it is a very profitable company and Pakistan's leading telecommunication and ICT services provider. It has really been fulfilling working for PTCL and sharing my time with an amazingly gifted team which has been fully aligned to achieve the highest standards from day one. I will certainly miss their commitment and dedication. I wish Dr. Daniel all the best, who is not new to PTCL as he has been a board member of PTCL".

"Working for PTCL and sharing my time with an amazingly gifted team which has been fully aligned to achieve the highest standards from day one. I wish Dr. Daniel all the best, who is not new to PTCL as he has been a board member of PTCL"

Samsung launches its latest Flagship Smartphone - the Galaxy S7-edge

Samsung has recently launched its next Flagship product-line - the Galaxy S7, Galaxy S7 edge and Edge Plus. The "Samsung Unpacked" ceremony for this launch was held in Barcelona, Spain. All GalaxyS7 variants are enriched with really impressive specifications and powerful features.

Samsung Galaxy S7 features; an Android v6.0 (Marshmallow Operating System) and runs on a powerful Octa-Core processor, Snapdragon 820 / Exynos 8890, 64 bit Chipset. It boasts a 4 GB RAM and 32/64/128 GB Internal Memory. The powerful 12.2 Mega Pixel primary camera offers BRITECELL Sensors along with an 8 MP Front facing camera with Dual Video call.

The Super AMOLED, 5.5 inch display on the Galaxy S7 edge is enriched with Force Touch and TouchWIZ UI. The screen is protected by a virtually unbreakable 'Corning Gorilla Glass 5' and Water & Dust Resistance (IP68 standard).

The device also features a Nano SIM and an endless array of the world's most advanced Apps including the 'Samsung Pay'. The S7 Edge is powered by a longer-lasting, fast charging 3600mAh non-removable battery, promising 24 hours of talk-time, along with 18 hours of video playback.

The Galaxy S7 smartphones can go everywhere you go – even in the rain or the pool, to endure up to 30 minutes or 1.5 meters of water depth. Your personal data is protected, round-the-clock, by Samsung Knox

– a dedicated security solution to protect your sensitive data against hackers and malware, by keeping it safely isolated and encrypted. These revolutionary devices promise super-fast multi-tasking and unmatched Mobile-gaming experiences. T

InnJoo redefines excellence in smartphone with the launch of Fire2 Plus in Middle East

InnJoo, has redefined excellence in smartphone with the launch of Fire2 Plus in UAE and Saudi Arabia. The Fire2 Plus is the extension of successful Fire series, which has set the market on fire ever since it was unveiled last year.

The InnJoo Fire2 Plus is a stunning 5.5-inch HD display 4G LTE smartphone crafted in one piece metal body with ultimate sleek looks redlines the limits of smartphone design. The new smartphone powered by 4600 mAh powerful battery ensures faster charging, which only takes 1.5 hours to full charge.

"The success of Fire series has encouraged us to introduce more features and incorporate advance technology. Fire2 Plus is a step in same direction and we are confident that our new smartphone with smarter design, sleek looks and brilliant features at the most affordable price will set the market on fire once again," said, Tim Chen, Co-founder and CEO at InnJoo.

The dual SIM, Fire2 Plus has a 1.3 GHz Quad-Core processor, 2 GB DDR RAM, Android 5.1 operating system, 16 GB internal memory, 128 GB expandable storage slot, micro USB port and Bluetooth. The latest 4G LTE smartphone is exclusively available at Souq.com for 399 AED in UAE and 399 SAR in Saudi Arabia.

"Our in-house developed launcher, the Fly launcher seamlessly integrates with InnJoo Fire2 Plus to offer a superior user experience with fast booting, clean interface and easy operation. The 5 megapixel

front camera allows users to shoot beautiful Selfies, while, 13 megapixel rear camera with Auto Focus, f/2.0 aperture, and 4P lens helps them create a truly extraordinary world of images around them," said Chen. T

GLOBAL ICT & TELECOM EVENTS

March 2016

Satellite 2016	07 - 10 March	Maryland, US
CABSAT	08 - 10 March	Dubai, UAE
CeBIT Germany 2016,	14 - 18 March	Hannover, Germany
MEFTECH	22 - 23 March	Abu Dhabi, UAE
Future Technology Week	29 - 31 March	Dubai, UAE
GISEC	29 - 31 March	Dubai, UAE

April 2016

6th Annual Cloud MENA	11 - 12 April	Dubai, UAE
Broadband TV Connect Asia	11 - 13 April	Jakarta, Indonesia
5G forum USA	13 - 14 April	Palo Alto, USA
Hong Kong International ICT Expo	13 - 16 April	Hong Kong
SubOptic 2016	18 - 21 April	Dubai, UAE
Expo Comm Russia 2016	19 - 21 April	Moscow, Russia
Cards & Payments Asia 2016	20-21 April	Singapore
Future Bank	20-21 April	Singapore
M2M World Congress	26 - 27 April	London, UK
Comex 2016	26 - 28 April	Muscat, Oman

May 2016

CeBIT 2016	02 - 04 May	Sydney, Australia
Lte Mena	09 - 11 May	Dubai, UAE
SCWS World	10 - 12 May	London, UK
2nd Smart Cities India 2016 Expo	11 - 13 May	New Delhi, India
East Africa Com	18 - 19 May	Nairobi, Kenya.
MilsatCom Asia Pacific	26 - 27 May	Singapore
Internet of Things	30 May	Fairmont, Dubai
The Mobile Show Middle East	31 May - 01 June	Dubai,UAE
Cards & Payments	31 May - 01 June	Dubai, UAE
CommunicAsia 2016	31 May - 03 June	Singapore

GLOBAL ICT & TELECOM EVENTS

June, July & August 2016

Asia Communication Awards	01 June	Singapore
Convergence Africa World	22 - 24 June	Nairobi, Kenya
5G World	28 - 30 June	London, UK
GSMA Mobile world Congeress Shanghai	29 June - 01 July	Shanghai, China
Vietnam ICT COMM 2016	20 - 22 July	Hanoi Vietnam
ICETE 2016	26 - 28 July	Lisbon, Portugal
Mobile Milsatcom	30 - 31 August	London, UK
Communic Indonesia 2016	31 Aug - 03 Sep	Jakarta, Indonesia

September 2016

IBC	08 - 13 September	Amsterdam, Netherlands
Nigeria com	21- 22 September	Lagos, Nigeria
Lte Asia	26 - 28 September	Singapore
Telecom World Middle East	27 - 28 September	Dubai, UAE
ITCN Asia	27 - 29 September	Karachi, Pakistan
Middle East Com Telco Summit	29 - 30 September	Dubai, UAE

October 2016

Cloud Asia Expo	12 - 13 October	Singapore
Cebit Bilisim Eurasia	13 - 15 October	Istanbul, Turkey
GITEX Technology Week 2016	16 - 20 October	Dubai, UAE
GSMA Mobile 360 ME	18 - 19 October	Dubai, UAE
Broadband World Forum	18 - 20 October	London, UK

November 2016

ITU Telecom World	01 - 04 November	TBA
Global Milsatcom	08 - 10 November	London, UK
AfricaCom (19th Annual)	15 - 17 November	Cape Town, South Africa
Lte Africa	15 - 17 November	Cape Town, South Africa
Cloud Asia Forum	24 - 25 November	Hong Kong
Bakutel	30 Nov - 03 Dec	Baku Azerbaijan

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